



## **Ferrites and accessories**

Toroids  
R 2.5 to R 202

**Series/Type:**            **B64290**  
**Date:**                     June 2013

**R 2.50 × 1.50 × 1.00**
**B64290P0035**
**R 2.50 × 1.50 × 1.30**
**B64290P0072**

■ Parylene coating

**R 2.50 × 1.50 × 1.00 (mm)**
**R 0.098 × 0.059 × 0.039 (inch)**

### Dimensions

| $d_a$ (mm)                 | $d_i$ (mm)     | Height (mm)    | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------------------|----------------|----------------|-------------------|-------------------|-------------------|------------------------|
| $2.50 \pm 0.12$            | $1.50 \pm 0.1$ | $1.00 \pm 0.1$ | $0.098 \pm 0.005$ | $0.059 \pm 0.004$ | $0.039 \pm 0.004$ | uncoated <sup>1)</sup> |
| Coating thickness 0.017 mm |                |                |                   |                   |                   | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $l_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| K10      | $70 \pm 25\%$     | 700                  | B64290P0035X010 | 12.30                            | 6.02        | 0.49                   | 3.00                   | 0.02                   |
| T57      | $410 \pm 25\%$    | 4000                 | B64290P0035X057 |                                  |             |                        |                        |                        |
| N30      | $440 \pm 25\%$    | 4300                 | B64290P0035X830 |                                  |             |                        |                        |                        |
| T65      | $470 \pm 30\%$    | 4600                 | B64290P0035X065 |                                  |             |                        |                        |                        |
| T38      | $1020 \pm 30\%$   | 10000                | B64290P0035X038 |                                  |             |                        |                        |                        |
| T46      | $1530 \pm 30\%$   | 15000                | B64290P0035X046 |                                  |             |                        |                        |                        |

■ Parylene coating

**R 2.50 × 1.50 × 1.30 (mm)**
**R 0.098 × 0.059 × 0.051 (inch)**

### Dimensions

| $d_a$ (mm)                 | $d_i$ (mm)     | Height (mm)     | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------------------|----------------|-----------------|-------------------|-------------------|-------------------|------------------------|
| $2.50 \pm 0.12$            | $1.50 \pm 0.1$ | $1.30 \pm 0.12$ | $0.098 \pm 0.005$ | $0.059 \pm 0.004$ | $0.051 \pm 0.005$ | uncoated <sup>1)</sup> |
| Coating thickness 0.017 mm |                |                 |                   |                   |                   | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $l_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| K10      | $93 \pm 25\%$     | 700                  | B64290P0072X010 | 9.41                             | 6.02        | 0.64                   | 3.85                   | 0.02                   |
| T57      | $530 \pm 25\%$    | 4000                 | B64290P0072X057 |                                  |             |                        |                        |                        |
| T65      | $600 \pm 30\%$    | 4600                 | B64290P0072X065 |                                  |             |                        |                        |                        |
| T38      | $1320 \pm 30\%$   | 10000                | B64290P0072X038 |                                  |             |                        |                        |                        |
| T46      | $2000 \pm 30\%$   | 15000                | B64290P0072X046 |                                  |             |                        |                        |                        |

**R 2.54 × 1.27 × 1.27**
**B64290P0734**
**R 3.05 × 1.27 × 1.27**
**B64290P0683**

■ Parylene coating

**R 2.54 × 1.27 × 1.27 (mm)**
**R 0.100 × 0.050 × 0.050 (inch)**

### Dimensions

| $d_a$ (mm)                 | $d_i$ (mm)      | Height (mm)     | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------------------|-----------------|-----------------|-------------------|-------------------|-------------------|------------------------|
| $2.54 \pm 0.12$            | $1.27 \pm 0.12$ | $1.27 \pm 0.12$ | $0.100 \pm 0.005$ | $0.050 \pm 0.005$ | $0.050 \pm 0.005$ | uncoated <sup>1)</sup> |
| Coating thickness 0.017 mm |                 |                 |                   |                   |                   | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $I_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| K10      | $120 \pm 25\%$    | 700                  | B64290P0734X010 | 7.18                             | 5.53        | 0.77                   | 4.29                   | 0.03                   |
| T57      | $690 \pm 25\%$    | 3900                 | B64290P0734X057 |                                  |             |                        |                        |                        |
| T65      | $800 \pm 30\%$    | 4500                 | B64290P0734X065 |                                  |             |                        |                        |                        |
| T38      | $1760 \pm 30\%$   | 10000                | B64290P0734X038 |                                  |             |                        |                        |                        |
| T46      | $2640 \pm 30\%$   | 15000                | B64290P0734X046 |                                  |             |                        |                        |                        |

■ Parylene coating

**R 3.05 × 1.27 × 1.27 (mm)**
**R 0.120 × 0.050 × 0.050 (inch)**

### Dimensions

| $d_a$ (mm)                 | $d_i$ (mm)      | Height (mm)     | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------------------|-----------------|-----------------|-------------------|-------------------|-------------------|------------------------|
| $3.05 \pm 0.12$            | $1.27 \pm 0.12$ | $1.27 \pm 0.12$ | $0.120 \pm 0.005$ | $0.050 \pm 0.005$ | $0.050 \pm 0.005$ | uncoated <sup>1)</sup> |
| Coating thickness 0.017 mm |                 |                 |                   |                   |                   | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $I_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| K10      | $160 \pm 25\%$    | 700                  | B64290P0683X010 | 5.65                             | 5.99        | 1.06                   | 6.4                    | 0.04                   |
| T57      | $830 \pm 25\%$    | 3700                 | B64290P0683X057 |                                  |             |                        |                        |                        |
| T65      | $1000 \pm 30\%$   | 4500                 | B64290P0683X065 |                                  |             |                        |                        |                        |
| T38      | $2200 \pm 30\%$   | 9900                 | B64290P0683X038 |                                  |             |                        |                        |                        |
| T46      | $3340 \pm 30\%$   | 15000                | B64290P0683X046 |                                  |             |                        |                        |                        |

**R 3.05 × 1.27 × 2.54**
**B64290P0739**
**R 3.05 × 1.78 × 2.03**
**B64290P0733**

■ Parylene coating

**R 3.05 × 1.27 × 2.54 (mm)**
**R 0.120 × 0.050 × 0.100 (inch)**

### Dimensions

| $d_a$ (mm)                 | $d_i$ (mm)      | Height (mm)     | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------------------|-----------------|-----------------|-------------------|-------------------|-------------------|------------------------|
| $3.05 \pm 0.12$            | $1.27 \pm 0.12$ | $2.54 \pm 0.12$ | $0.120 \pm 0.005$ | $0.050 \pm 0.005$ | $0.100 \pm 0.005$ | uncoated <sup>1)</sup> |
| Coating thickness 0.017 mm |                 |                 |                   |                   |                   | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $I_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| K10      | $330 \pm 25\%$    | 700                  | B64290P0739X010 | 2.82                             | 5.99        | 2.12                   | 12.7                   | 0.08                   |
| T57      | $1700 \pm 25\%$   | 3800                 | B64290P0739X057 |                                  |             |                        |                        |                        |
| T65      | $2000 \pm 30\%$   | 4500                 | B64290P0739X065 |                                  |             |                        |                        |                        |
| T38      | $4200 \pm 30\%$   | 9400                 | B64290P0739X038 |                                  |             |                        |                        |                        |
| T46      | $6500 \pm 30\%$   | 15000                | B64290P0739X046 |                                  |             |                        |                        |                        |

■ Parylene coating

**R 3.05 × 1.78 × 2.03 (mm)**
**R 0.120 × 0.070 × 0.080 (inch)**

### Dimensions

| $d_a$ (mm)                 | $d_i$ (mm)      | Height (mm)     | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------------------|-----------------|-----------------|-------------------|-------------------|-------------------|------------------------|
| $3.05 \pm 0.12$            | $1.78 \pm 0.12$ | $2.03 \pm 0.12$ | $0.120 \pm 0.005$ | $0.070 \pm 0.005$ | $0.080 \pm 0.005$ | uncoated <sup>1)</sup> |
| Coating thickness 0.017 mm |                 |                 |                   |                   |                   | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $I_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| K10      | $160 \pm 25\%$    | 700                  | B64290P0733X010 | 5.75                             | 7.23        | 1.26                   | 9.10                   | 0.06                   |
| T57      | $870 \pm 25\%$    | 4000                 | B64290P0733X057 |                                  |             |                        |                        |                        |
| T65      | $1000 \pm 30\%$   | 4600                 | B64290P0733X065 |                                  |             |                        |                        |                        |
| T38      | $2150 \pm 30\%$   | 9900                 | B64290P0733X038 |                                  |             |                        |                        |                        |
| T46      | $3250 \pm 30\%$   | 15000                | B64290P0733X046 |                                  |             |                        |                        |                        |

**R 3.43 × 1.78 × 1.78**
**B64290P0731**
**R 3.43 × 1.78 × 2.03**
**B64290P0745**

■ Parylene coating

**R 3.43 × 1.78 × 1.78 (mm)**
**R 0.135 × 0.070 × 0.070 (inch)**

### Dimensions

| $d_a$ (mm)                 | $d_i$ (mm)      | Height (mm)     | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------------------|-----------------|-----------------|-------------------|-------------------|-------------------|------------------------|
| $3.43 \pm 0.12$            | $1.78 \pm 0.12$ | $1.78 \pm 0.12$ | $0.135 \pm 0.005$ | $0.070 \pm 0.005$ | $0.070 \pm 0.005$ | uncoated <sup>1)</sup> |
| Coating thickness 0.017 mm |                 |                 |                   |                   |                   | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $I_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| K10      | $160 \pm 25\%$    | 700                  | B64290P0731X010 | 5.38                             | 7.63        | 1.42                   | 10.7                   | 0.06                   |
| T57      | $930 \pm 25\%$    | 4000                 | B64290P0731X057 |                                  |             |                        |                        |                        |
| T65      | $1050 \pm 30\%$   | 4500                 | B64290P0731X065 |                                  |             |                        |                        |                        |
| T38      | $2300 \pm 30\%$   | 10000                | B64290P0731X038 |                                  |             |                        |                        |                        |
| T46      | $3400 \pm 30\%$   | 15000                | B64290P0731X046 |                                  |             |                        |                        |                        |

■ Parylene coating

**R 3.43 × 1.78 × 2.03 (mm)**
**R 0.135 × 0.070 × 0.080 (inch)**

### Dimensions

| $d_a$ (mm)                 | $d_i$ (mm)      | Height (mm)     | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------------------|-----------------|-----------------|-------------------|-------------------|-------------------|------------------------|
| $3.43 \pm 0.12$            | $1.78 \pm 0.12$ | $2.03 \pm 0.12$ | $0.135 \pm 0.005$ | $0.070 \pm 0.005$ | $0.080 \pm 0.005$ | uncoated <sup>1)</sup> |
| Coating thickness 0.017 mm |                 |                 |                   |                   |                   | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $I_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| K10      | $190 \pm 25\%$    | 700                  | B64290P0745X010 | 4.72                             | 7.63        | 1.62                   | 12.2                   | 0.07                   |
| T57      | $1060 \pm 25\%$   | 4000                 | B64290P0745X057 |                                  |             |                        |                        |                        |
| T65      | $1200 \pm 30\%$   | 4500                 | B64290P0745X065 |                                  |             |                        |                        |                        |
| T38      | $2650 \pm 30\%$   | 10000                | B64290P0745X038 |                                  |             |                        |                        |                        |
| T46      | $4000 \pm 30\%$   | 15000                | B64290P0745X046 |                                  |             |                        |                        |                        |

**R 3.43 × 1.78 × 2.11**
**B64290P0709**
**R 3.94 × 1.78 × 1.78**
**B64290P0732**

■ Parylene coating

**R 3.43 × 1.78 × 2.11 (mm)**
**R 0.135 × 0.070 × 0.083 (inch)**

### Dimensions

| $d_a$ (mm)                 | $d_i$ (mm)      | Height (mm)     | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------------------|-----------------|-----------------|-------------------|-------------------|-------------------|------------------------|
| $3.43 \pm 0.12$            | $1.78 \pm 0.12$ | $2.11 \pm 0.12$ | $0.135 \pm 0.005$ | $0.070 \pm 0.005$ | $0.083 \pm 0.005$ | uncoated <sup>1)</sup> |
| Coating thickness 0.017 mm |                 |                 |                   |                   |                   | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $I_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| K10      | $200 \pm 25\%$    | 700                  | B64290P0709X010 | 4.54                             | 7.63        | 1.68                   | 12.7                   | 0.07                   |
| T57      | $1100 \pm 25\%$   | 4000                 | B64290P0709X057 |                                  |             |                        |                        |                        |
| T65      | $1300 \pm 30\%$   | 4700                 | B64290P0709X065 |                                  |             |                        |                        |                        |
| T38      | $2770 \pm 30\%$   | 10000                | B64290P0709X038 |                                  |             |                        |                        |                        |
| T46      | $4000 \pm 30\%$   | 15000                | B64290P0709X046 |                                  |             |                        |                        |                        |

■ Parylene coating

**R 3.94 × 1.78 × 1.78 (mm)**
**R 0.155 × 0.070 × 0.070 (inch)**

### Dimensions

| $d_a$ (mm)                 | $d_i$ (mm)      | Height (mm)     | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------------------|-----------------|-----------------|-------------------|-------------------|-------------------|------------------------|
| $3.94 \pm 0.12$            | $1.78 \pm 0.12$ | $1.78 \pm 0.12$ | $0.155 \pm 0.005$ | $0.070 \pm 0.005$ | $0.070 \pm 0.005$ | uncoated <sup>1)</sup> |
| Coating thickness 0.017 mm |                 |                 |                   |                   |                   | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $I_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| K10      | $200 \pm 25\%$    | 700                  | B64290P0732X010 | 4.44                             | 8.10        | 1.82                   | 14.8                   | 0.08                   |
| T57      | $1100 \pm 25\%$   | 3900                 | B64290P0732X057 |                                  |             |                        |                        |                        |
| T65      | $1350 \pm 30\%$   | 4800                 | B64290P0732X065 |                                  |             |                        |                        |                        |
| T38      | $2830 \pm 30\%$   | 10000                | B64290P0732X038 |                                  |             |                        |                        |                        |
| T46      | $4200 \pm 30\%$   | 15000                | B64290P0732X046 |                                  |             |                        |                        |                        |

**R 3.94 × 2.24 × 1.30**
**B64290P0061**
**R 3.94 × 2.24 × 2.30**
**B64290P0723**

■ Parylene coating

**R 3.94 × 2.24 × 1.30 (mm)**
**R 0.155 × 0.088 × 0.051 (inch)**

### Dimensions

| $d_a$ (mm)                 | $d_i$ (mm)      | Height (mm)     | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------------------|-----------------|-----------------|-------------------|-------------------|-------------------|------------------------|
| $3.94 \pm 0.12$            | $2.24 \pm 0.12$ | $1.30 \pm 0.12$ | $0.155 \pm 0.005$ | $0.088 \pm 0.005$ | $0.051 \pm 0.005$ | uncoated <sup>1)</sup> |
| Coating thickness 0.017 mm |                 |                 |                   |                   |                   | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $l_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| K10      | $100 \pm 25\%$    | 700                  | B64290P0061X010 | 8.56                             | 9.21        | 1.08                   | 9.90                   | 0.05                   |
| T57      | $550 \pm 25\%$    | 3800                 | B64290P0061X057 |                                  |             |                        |                        |                        |
| T65      | $700 \pm 30\%$    | 4800                 | B64290P0061X065 |                                  |             |                        |                        |                        |
| T38      | $1470 \pm 30\%$   | 10000                | B64290P0061X038 |                                  |             |                        |                        |                        |
| T46      | $2200 \pm 30\%$   | 15000                | B64290P0061X046 |                                  |             |                        |                        |                        |

■ Parylene coating

**R 3.94 × 2.24 × 2.30 (mm)**
**R 0.155 × 0.088 × 0.090 (inch)**

### Dimensions

| $d_a$ (mm)                 | $d_i$ (mm)      | Height (mm)     | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------------------|-----------------|-----------------|-------------------|-------------------|-------------------|------------------------|
| $3.94 \pm 0.12$            | $2.24 \pm 0.12$ | $2.30 \pm 0.15$ | $0.155 \pm 0.005$ | $0.088 \pm 0.005$ | $0.090 \pm 0.006$ | uncoated <sup>1)</sup> |
| Coating thickness 0.017 mm |                 |                 |                   |                   |                   | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $l_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| K10      | $180 \pm 25\%$    | 700                  | B64290P0723X010 | 4.85                             | 9.21        | 1.90                   | 17.5                   | 0.09                   |
| T57      | $990 \pm 25\%$    | 3800                 | B64290P0723X057 |                                  |             |                        |                        |                        |
| T65      | $1200 \pm 30\%$   | 4800                 | B64290P0723X065 |                                  |             |                        |                        |                        |
| T38      | $2600 \pm 30\%$   | 10000                | B64290P0723X038 |                                  |             |                        |                        |                        |
| T46      | $3890 \pm 30\%$   | 15000                | B64290P0723X046 |                                  |             |                        |                        |                        |

**R 4.00 × 2.40 × 1.60**
**B64290P0036**
**R 4.00 × 2.40 × 1.80**
**B64290P0692**

■ Parylene coating

**R 4.00 × 2.40 × 1.60 (mm)**
**R 0.157 × 0.094 × 0.063 (inch)**

### Dimensions

| $d_a$ (mm)                 | $d_i$ (mm)      | Height (mm)    | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------------------|-----------------|----------------|-------------------|-------------------|-------------------|------------------------|
| $4.00 \pm 0.12$            | $2.40 \pm 0.12$ | $1.60 \pm 0.1$ | $0.157 \pm 0.005$ | $0.094 \pm 0.004$ | $0.063 \pm 0.004$ | uncoated <sup>1)</sup> |
| Coating thickness 0.017 mm |                 |                |                   |                   |                   | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $l_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| N30      | $700 \pm 25\%$    | 4300                 | B64290P0036X830 | 7.7                              | 9.63        | 1.25                   | 12.0                   | 0.05                   |
| T65      | $750 \pm 30\%$    | 4600                 | B64290P0036X065 |                                  |             |                        |                        |                        |
| T38      | $1630 \pm 30\%$   | 10000                | B64290P0036X038 |                                  |             |                        |                        |                        |
| T46      | $2450 \pm 30\%$   | 15000                | B64290P0036X046 |                                  |             |                        |                        |                        |

■ Parylene coating

**R 4.00 × 2.40 × 1.80 (mm)**
**R 0.157 × 0.094 × 0.071 (inch)**

### Dimensions

| $d_a$ (mm)                 | $d_i$ (mm)      | Height (mm)     | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------------------|-----------------|-----------------|-------------------|-------------------|-------------------|------------------------|
| $4.00 \pm 0.12$            | $2.40 \pm 0.12$ | $1.80 \pm 0.12$ | $0.157 \pm 0.005$ | $0.094 \pm 0.004$ | $0.071 \pm 0.005$ | uncoated <sup>1)</sup> |
| Coating thickness 0.017 mm |                 |                 |                   |                   |                   | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $l_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| N30      | $790 \pm 25\%$    | 4300                 | B64290P0692X830 | 6.83                             | 9.63        | 1.41                   | 13.6                   | 0.07                   |
| T65      | $840 \pm 30\%$    | 4600                 | B64290P0692X065 |                                  |             |                        |                        |                        |
| T38      | $1840 \pm 30\%$   | 10000                | B64290P0692X038 |                                  |             |                        |                        |                        |
| T46      | $2760 \pm 30\%$   | 15000                | B64290P0692X046 |                                  |             |                        |                        |                        |

**R 5.84 × 3.05 × 1.52**
**B64290P0056**
**R 5.84 × 3.05 × 3.00**
**B64290P0687**

■ Parylene coating

**R 5.84 × 3.05 × 1.52 (mm)**
**R 0.230 × 0.120 × 0.060 (inch)**

### Dimensions

| $d_a$ (mm)                 | $d_i$ (mm)      | Height (mm)     | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------------------|-----------------|-----------------|-------------------|-------------------|-------------------|------------------------|
| $5.84 \pm 0.12$            | $3.05 \pm 0.12$ | $1.52 \pm 0.12$ | $0.230 \pm 0.005$ | $0.120 \pm 0.005$ | $0.060 \pm 0.005$ | uncoated <sup>1)</sup> |
| Coating thickness 0.017 mm |                 |                 |                   |                   |                   | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $l_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| N30      | $850 \pm 25\%$    | 4300                 | B64290P0056X830 | 6.36                             | 13.03       | 2.05                   | 26.7                   | 0.15                   |
| T65      | $1020 \pm 30\%$   | 4600                 | B64290P0056X065 |                                  |             |                        |                        |                        |
| T38      | $1900 \pm 30\%$   | 10000                | B64290P0056X038 |                                  |             |                        |                        |                        |
| T46      | $2900 \pm 30\%$   | 15000                | B64290P0056X046 |                                  |             |                        |                        |                        |

■ Parylene coating

**R 5.84 × 3.05 × 3.00 (mm)**
**R 0.230 × 0.120 × 0.118 (inch)**

### Dimensions

| $d_a$ (mm)                 | $d_i$ (mm)      | Height (mm)     | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------------------|-----------------|-----------------|-------------------|-------------------|-------------------|------------------------|
| $5.84 \pm 0.12$            | $3.05 \pm 0.12$ | $3.00 \pm 0.15$ | $0.230 \pm 0.005$ | $0.120 \pm 0.005$ | $0.118 \pm 0.005$ | uncoated <sup>1)</sup> |
| Coating thickness 0.017 mm |                 |                 |                   |                   |                   | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $l_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| N30      | $1680 \pm 25\%$   | 4300                 | B64290P0687X830 | 3.22                             | 13.03       | 4.04                   | 52.6                   | 0.3                    |
| T65      | $1800 \pm 30\%$   | 4600                 | B64290P0687X065 |                                  |             |                        |                        |                        |
| T38      | $3900 \pm 30\%$   | 10000                | B64290P0687X038 |                                  |             |                        |                        |                        |
| T46      | $5850 \pm 30\%$   | 15000                | B64290P0687X046 |                                  |             |                        |                        |                        |

**R 6.30 × 3.80 × 2.50**
**B64290P0037**
**R 8.00 × 4.00 × 4.00**
**B64290P0751**

■ Parylene coating

**R 6.30 × 3.80 × 2.50 (mm)**
**R 0.248 × 0.150 × 0.098 (inch)**

### Dimensions

| $d_a$ (mm)                 | $d_i$ (mm)      | Height (mm)     | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------------------|-----------------|-----------------|-------------------|-------------------|-------------------|------------------------|
| $6.30 \pm 0.15$            | $3.80 \pm 0.12$ | $2.50 \pm 0.12$ | $0.248 \pm 0.006$ | $0.150 \pm 0.005$ | $0.098 \pm 0.005$ | uncoated <sup>1)</sup> |
| Coating thickness 0.017 mm |                 |                 |                   |                   |                   | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                          |                          | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|--------------------------|--------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>mm <sup>-1</sup> | $l_e$<br>mm | $A_e$<br>mm <sup>2</sup> | $V_e$<br>mm <sup>3</sup> |                        |
| K1       | $20 \pm 25\%$     | 80                   | B64290P0037X001 | 4.97                             | 15.21       | 3.06                     | 46.5                     | 0.2                    |
| N87      | $560 \pm 25\%$    | 2200                 | B64290P0037X087 |                                  |             |                          |                          |                        |
| N30      | $1090 \pm 25\%$   | 4300                 | B64290P0037X830 |                                  |             |                          |                          |                        |
| T65      | $1160 \pm 30\%$   | 4600                 | B64290P0037X065 |                                  |             |                          |                          |                        |
| T38      | $2530 \pm 30\%$   | 10000                | B64290P0037X038 |                                  |             |                          |                          |                        |
| T46      | $3600 \pm 30\%$   | 14000                | B64290P0037X046 |                                  |             |                          |                          |                        |

■ Parylene coating

**R 8.00 × 4.00 × 4.00 (mm)**
**R 0.315 × 0.158 × 0.158 (inch)**

### Dimensions

| $d_a$ (mm)                 | $d_i$ (mm)      | Height (mm)     | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------------------|-----------------|-----------------|-------------------|-------------------|-------------------|------------------------|
| $8.00 \pm 0.18$            | $4.00 \pm 0.12$ | $4.00 \pm 0.12$ | $0.315 \pm 0.007$ | $0.158 \pm 0.005$ | $0.158 \pm 0.005$ | uncoated <sup>1)</sup> |
| Coating thickness 0.017 mm |                 |                 |                   |                   |                   | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                          |                          | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|--------------------------|--------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>mm <sup>-1</sup> | $l_e$<br>mm | $A_e$<br>mm <sup>2</sup> | $V_e$<br>mm <sup>3</sup> |                        |
| N87      | $1200 \pm 25\%$   | 2200                 | B64290P0751X087 | 2.26                             | 17.42       | 7.70                     | 134                      | 0.7                    |
| N30      | $2400 \pm 25\%$   | 4300                 | B64290P0751X830 |                                  |             |                          |                          |                        |
| T65      | $2550 \pm 30\%$   | 4600                 | B64290P0751X065 |                                  |             |                          |                          |                        |
| T38      | $5500 \pm 30\%$   | 10000                | B64290P0751X038 |                                  |             |                          |                          |                        |
| T46      | $8000 \pm 30\%$   | 15000                | B64290P0751X046 |                                  |             |                          |                          |                        |

**R 9.53 × 4.75 × 3.17**
**B64290L0062**
**R 10.0 × 6.00 × 4.00**
**B64290L0038**

■ Epoxy coating

**R 9.53 × 4.75 × 3.17 (mm)**
**R 0.375 × 0.187 × 0.125 (inch)**

### Dimensions

| $d_a$ (mm)      | $d_i$ (mm)      | Height (mm)     | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|-----------------|-----------------|-----------------|-------------------|-------------------|-------------------|------------------------|
| $9.53 \pm 0.19$ | $4.75 \pm 0.12$ | $3.17 \pm 0.15$ | $0.375 \pm 0.007$ | $0.187 \pm 0.005$ | $0.125 \pm 0.006$ | uncoated <sup>1)</sup> |
| 10.5 max.       | 3.8 min.        | 4.1 max.        | 0.413 max.        | 0.130 min.        | 0.161 max.        | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $l_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| N87      | $970 \pm 25\%$    | 2200                 | B64290L0062X087 | 2.85                             | 20.72       | 7.28                   | 151                    | 0.8                    |
| N30      | $1900 \pm 25\%$   | 4300                 | B64290L0062X830 |                                  |             |                        |                        |                        |
| T65      | $2050 \pm 30\%$   | 4600                 | B64290L0062X065 |                                  |             |                        |                        |                        |
| T35      | $2650 \pm 25\%$   | 6000                 | B64290L0062X035 |                                  |             |                        |                        |                        |
| T38      | $4410 \pm 30\%$   | 10000                | B64290L0062X038 |                                  |             |                        |                        |                        |
| T46      | $6400 \pm 30\%$   | 15000                | B64290L0062X046 |                                  |             |                        |                        |                        |

■ Epoxy coating

**R 10.0 × 6.00 × 4.00 (mm)**
**R 0.394 × 0.236 × 0.157 (inch)**

### Dimensions

| $d_a$ (mm)     | $d_i$ (mm)     | Height (mm)     | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------|----------------|-----------------|-------------------|-------------------|-------------------|------------------------|
| $10.0 \pm 0.2$ | $6.0 \pm 0.15$ | $4.00 \pm 0.15$ | $0.394 \pm 0.008$ | $0.236 \pm 0.006$ | $0.157 \pm 0.006$ | uncoated <sup>1)</sup> |
| 10.8 max.      | 5.25 min.      | 4.75 max.       | 0.433 max.        | 0.199 min.        | 0.195 max.        | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $l_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| N49      | $610 \pm 25\%$    | 1500                 | B64290L0038X049 | 3.07                             | 24.07       | 7.83                   | 188                    | 0.9                    |
| N87      | $900 \pm 25\%$    | 2200                 | B64290L0038X087 |                                  |             |                        |                        |                        |
| N30      | $1760 \pm 25\%$   | 4300                 | B64290L0038X830 |                                  |             |                        |                        |                        |
| T65      | $1900 \pm 30\%$   | 4700                 | B64290L0038X065 |                                  |             |                        |                        |                        |
| T35      | $2460 \pm 25\%$   | 6000                 | B64290L0038X035 |                                  |             |                        |                        |                        |
| T37      | $2660 \pm 25\%$   | 6500                 | B64290L0038X037 |                                  |             |                        |                        |                        |
| T38      | $4090 \pm 30\%$   | 10000                | B64290L0038X038 |                                  |             |                        |                        |                        |
| T46      | $6000 \pm 30\%$   | 15000                | B64290L0038X046 |                                  |             |                        |                        |                        |

**R 10.0 × 6.00 × 7.00**
**B64290L0783**
**R 12.5 × 7.50 × 5.00**
**B64290L0044**

■ Epoxy coating

**R 10.0 × 6.00 × 7.00 (mm)**
**R 0.394 × 0.236 × 0.318 (inch)**

### Dimensions

| $d_a$ (mm)     | $d_i$ (mm)     | Height (mm)     | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------|----------------|-----------------|-------------------|-------------------|-------------------|------------------------|
| $10.0 \pm 0.2$ | $6.0 \pm 0.15$ | $7.00 \pm 0.15$ | $0.394 \pm 0.008$ | $0.236 \pm 0.006$ | $0.275 \pm 0.006$ | uncoated <sup>1)</sup> |
| 10.8 max.      | 5.25 min.      | 7.75 max.       | 0.433 max.        | 0.199 min.        | 0.318 max.        | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $I_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| K10      | $450 \pm 25\%$    | 630                  | B64290L0783X010 | 1.76                             | 24.07       | 13.7                   | 330                    | 1.7                    |
| N30      | $3070 \pm 25\%$   | 4300                 | B64290L0783X830 |                                  |             |                        |                        |                        |
| T65      | $3360 \pm 30\%$   | 4700                 | B64290L0783X065 |                                  |             |                        |                        |                        |
| T38      | $7150 \pm 30\%$   | 10000                | B64290L0783X038 |                                  |             |                        |                        |                        |
| T46      | $10700 \pm 30\%$  | 15000                | B64290L0783X046 |                                  |             |                        |                        |                        |

■ Epoxy coating

**R 12.5 × 7.50 × 5.00 (mm)**
**R 0.492 × 0.295 × 0.197 (inch)**

### Dimensions

| $d_a$ (mm)     | $d_i$ (mm)    | Height (mm)     | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------|---------------|-----------------|-------------------|-------------------|-------------------|------------------------|
| $12.5 \pm 0.3$ | $7.5 \pm 0.2$ | $5.00 \pm 0.15$ | $0.492 \pm 0.012$ | $0.295 \pm 0.008$ | $0.197 \pm 0.005$ | uncoated <sup>1)</sup> |
| 13.6 max.      | 6.5 min.      | 5.95 max.       | 0.535 max.        | 0.256 min.        | 0.234 max.        | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $I_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| N49      | $660 \pm 25\%$    | 1300                 | B64290L0044X049 | 2.46                             | 30.09       | 12.23                  | 368                    | 1.8                    |
| N87      | $1120 \pm 25\%$   | 2200                 | B64290L0044X087 |                                  |             |                        |                        |                        |
| N30      | $2200 \pm 25\%$   | 4300                 | B64290L0044X830 |                                  |             |                        |                        |                        |
| T65      | $2400 \pm 30\%$   | 4700                 | B64290L0044X065 |                                  |             |                        |                        |                        |
| T35      | $3060 \pm 25\%$   | 6000                 | B64290L0044X035 |                                  |             |                        |                        |                        |
| T37      | $3320 \pm 25\%$   | 6500                 | B64290L0044X037 |                                  |             |                        |                        |                        |
| T38      | $5110 \pm 30\%$   | 10000                | B64290L0044X038 |                                  |             |                        |                        |                        |

**R 12.7 × 7.90 × 6.35**
**B64290L0742**
**R 13.3 × 8.30 × 5.00**
**B64290L0644**

■ Epoxy coating

**R 12.7 × 7.90 × 6.35 (mm)**
**R 0.500 × 0.311 × 0.250 (inch)**

### Dimensions

| $d_a$ (mm) | $d_i$ (mm) | Height (mm) | $d_a$ (inch) | $d_i$ (inch) | Height (inch) |                        |
|------------|------------|-------------|--------------|--------------|---------------|------------------------|
| 12.7 ±0.3  | 7.9 ±0.25  | 6.35 ±0.2   | 0.500 ±0.012 | 0.311 ±0.010 | 0.250 ±0.008  | uncoated <sup>1)</sup> |
| 13.6 max.  | 7.10 min.  | 7.15 max.   | 0.535 max.   | 0.281 min.   | 0.281 max.    | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                          |                          | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|--------------------------|--------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>mm <sup>-1</sup> | $l_e$<br>mm | $A_e$<br>mm <sup>2</sup> | $V_e$<br>mm <sup>3</sup> |                        |
| N87      | 1330 ±25%         | 2200                 | B64290L0742X087 | 2.08                             | 31.17       | 14.96                    | 466                      | 2.4                    |
| N30      | 2600 ±25%         | 4300                 | B64290L0742X830 |                                  |             |                          |                          |                        |
| T65      | 2850 ±30%         | 4700                 | B64290L0742X065 |                                  |             |                          |                          |                        |
| T35      | 3620 ±25%         | 6000                 | B64290L0742X035 |                                  |             |                          |                          |                        |
| T37      | 3920 ±25%         | 6500                 | B64290L0742X037 |                                  |             |                          |                          |                        |
| T38      | 6030 ±30%         | 10000                | B64290L0742X038 |                                  |             |                          |                          |                        |

■ Epoxy coating

**R 13.3 × 8.30 × 5.00 (mm)**
**R 0.524 × 0.327 × 0.197 (inch)**

### Dimensions

| $d_a$ (mm) | $d_i$ (mm) | Height (mm) | $d_a$ (inch) | $d_i$ (inch) | Height (inch) |                        |
|------------|------------|-------------|--------------|--------------|---------------|------------------------|
| 13.3 ±0.3  | 8.3 ±0.3   | 5.00 ±0.15  | 0.524 ±0.012 | 0.327 ±0.012 | 0.197 ±0.005  | uncoated <sup>1)</sup> |
| 14.4 max.  | 7.2 min.   | 5.95 max.   | 0.567 max.   | 0.283 min.   | 0.234 max.    | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                          |                          | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|--------------------------|--------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>mm <sup>-1</sup> | $l_e$<br>mm | $A_e$<br>mm <sup>2</sup> | $V_e$<br>mm <sup>3</sup> |                        |
| N87      | 1040 ±25%         | 2200                 | B64290L0644X087 | 2.67                             | 32.70       | 12.27                    | 401                      | 1.8                    |
| N30      | 2030 ±25%         | 4300                 | B64290L0644X830 |                                  |             |                          |                          |                        |
| T65      | 2300 ±30%         | 4900                 | B64290L0644X065 |                                  |             |                          |                          |                        |
| T35      | 2830 ±25%         | 6000                 | B64290L0644X035 |                                  |             |                          |                          |                        |
| T37      | 3060 ±25%         | 6500                 | B64290L0644X037 |                                  |             |                          |                          |                        |
| T38      | 4700 ±30%         | 10000                | B64290L0644X038 |                                  |             |                          |                          |                        |

**R 14.0 × 9.00 × 5.00**
**B64290L0658**
**R 15.0 × 10.4 × 5.30**
**B64290L0623**

■ Epoxy coating

**R 14.0 × 9.00 × 5.00 (mm)**
**R 0.551 × 0.354 × 0.197 (inch)**

### Dimensions

| $d_a$ (mm) | $d_i$ (mm) | Height (mm) | $d_a$ (inch) | $d_i$ (inch) | Height (inch) |                        |
|------------|------------|-------------|--------------|--------------|---------------|------------------------|
| 14.0 ±0.3  | 9.0 ±0.25  | 5.00 ±0.2   | 0.551 ±0.012 | 0.354 ±0.012 | 0.197 ±0.008  | uncoated <sup>1)</sup> |
| 15.1 max.  | 7.95 min.  | 6.0 max.    | 0.594 max.   | 0.313 min.   | 0.236 max.    | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                          |                          | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|--------------------------|--------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>mm <sup>-1</sup> | $l_e$<br>mm | $A_e$<br>mm <sup>2</sup> | $V_e$<br>mm <sup>3</sup> |                        |
| N87      | 970 ±25%          | 2200                 | B64290L0658X087 | 2.84                             | 34.98       | 12.30                    | 430                      | 2.0                    |
| N30      | 1900 ±25%         | 4300                 | B64290L0658X830 |                                  |             |                          |                          |                        |
| T65      | 2300 ±30%         | 5200                 | B64290L0658X065 |                                  |             |                          |                          |                        |
| T35      | 2650 ±25%         | 6000                 | B64290L0658X035 |                                  |             |                          |                          |                        |
| T37      | 2880 ±25%         | 6500                 | B64290L0658X037 |                                  |             |                          |                          |                        |
| T38      | 4420 ±30%         | 10000                | B64290L0658X038 |                                  |             |                          |                          |                        |

■ Epoxy coating

**R 15.0 × 10.4 × 5.30 (mm)**
**R 0.591 × 0.409 × 0.209 (inch)**

### Dimensions

| $d_a$ (mm) | $d_i$ (mm) | Height (mm) | $d_a$ (inch) | $d_i$ (inch) | Height (inch) |                        |
|------------|------------|-------------|--------------|--------------|---------------|------------------------|
| 15.0 ±0.5  | 10.4 ±0.4  | 5.30 ±0.3   | 0.591 ±0.020 | 0.409 ±0.016 | 0.209 ±0.012  | uncoated <sup>1)</sup> |
| 16.3 max.  | 9.2 min.   | 6.4 max.    | 0.642 max.   | 0.362 min.   | 0.252 max.    | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                          |                          | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|--------------------------|--------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>mm <sup>-1</sup> | $l_e$<br>mm | $A_e$<br>mm <sup>2</sup> | $V_e$<br>mm <sup>3</sup> |                        |
| N87      | 850 ±25%          | 2200                 | B64290L0623X087 | 3.24                             | 39.02       | 12.05                    | 470                      | 2.4                    |
| N30      | 1670 ±25%         | 4300                 | B64290L0623X830 |                                  |             |                          |                          |                        |
| T65      | 2020 ±30%         | 5200                 | B64290L0623X065 |                                  |             |                          |                          |                        |
| T35      | 2330 ±25%         | 6000                 | B64290L0623X035 |                                  |             |                          |                          |                        |
| T37      | 2520 ±25%         | 6500                 | B64290L0623X037 |                                  |             |                          |                          |                        |
| T38      | 3880 ±30%         | 10000                | B64290L0623X038 |                                  |             |                          |                          |                        |

**R 15.8 × 8.90 × 4.70**
**B64290L0743**
**R 16.0 × 9.60 × 6.30**
**B64290L0045**

■ Epoxy coating

**R 15.8 × 8.90 × 4.70 (mm)**
**R 0.622 × 0.350 × 0.185 (inch)**

### Dimensions

| $d_a$ (mm) | $d_i$ (mm) | Height (mm) | $d_a$ (inch) | $d_i$ (inch) | Height (inch) |                        |
|------------|------------|-------------|--------------|--------------|---------------|------------------------|
| 15.8 ±0.38 | 8.9 ±0.25  | 4.70 ±0.13  | 0.622 ±0.015 | 0.350 ±0.010 | 0.185 ±0.005  | uncoated <sup>1)</sup> |
| 16.8 max.  | 8.05 min.  | 5.45 max.   | 0.661 max.   | 0.317 min.   | 0.215 max.    | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                          |                          | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|--------------------------|--------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>mm <sup>-1</sup> | $I_e$<br>mm | $A_e$<br>mm <sup>2</sup> | $V_e$<br>mm <sup>3</sup> |                        |
| N87      | 1190 ±25%         | 2200                 | B64290L0743X087 | 2.33                             | 36.75       | 15.78                    | 580                      | 3.0                    |
| N30      | 2320 ±25%         | 4300                 | B64290L0743X830 |                                  |             |                          |                          |                        |
| T65      | 2800 ±30%         | 5200                 | B64290L0743X065 |                                  |             |                          |                          |                        |
| T35      | 3240 ±25%         | 6000                 | B64290L0743X035 |                                  |             |                          |                          |                        |
| T37      | 3500 ±25%         | 6500                 | B64290L0743X037 |                                  |             |                          |                          |                        |
| T38      | 5400 ±30%         | 10000                | B64290L0743X038 |                                  |             |                          |                          |                        |

■ Epoxy coating

**R 16.0 × 9.60 × 6.30 (mm)**
**R 0.630 × 0.378 × 0.248 (inch)**

### Dimensions

| $d_a$ (mm) | $d_i$ (mm) | Height (mm) | $d_a$ (inch) | $d_i$ (inch) | Height (inch) |                        |
|------------|------------|-------------|--------------|--------------|---------------|------------------------|
| 16.0 ±0.4  | 9.6 ±0.3   | 6.30 ±0.2   | 0.630 ±0.016 | 0.378 ±0.012 | 0.248 ±0.008  | uncoated <sup>1)</sup> |
| 17.2 max.  | 8.5 min.   | 7.3 max.    | 0.677 max.   | 0.335 min.   | 0.287 max.    | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                          |                          | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|--------------------------|--------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>mm <sup>-1</sup> | $I_e$<br>mm | $A_e$<br>mm <sup>2</sup> | $V_e$<br>mm <sup>3</sup> |                        |
| N87      | 1420 ±25%         | 2200                 | B64290L0045X087 | 1.95                             | 38.52       | 19.73                    | 760                      | 3.7                    |
| N30      | 2770 ±25%         | 4300                 | B64290L0045X830 |                                  |             |                          |                          |                        |
| T65      | 3350 ±30%         | 5200                 | B64290L0045X065 |                                  |             |                          |                          |                        |
| T35      | 3870 ±25%         | 6000                 | B64290L0045X035 |                                  |             |                          |                          |                        |
| T37      | 4190 ±25%         | 6500                 | B64290L0045X037 |                                  |             |                          |                          |                        |
| T38      | 6440 ±30%         | 10000                | B64290L0045X038 |                                  |             |                          |                          |                        |

N87:  $P_V$  (200 mT, 100 kHz, 100 °C) < 0.45 W/core

**R 17.0 × 10.7 × 6.80**
**B64290L0652**
**R 18.4 × 5.90 × 5.90**
**B64290L0697**

■ Epoxy coating

**R 17.0 × 10.7 × 6.80 (mm)**
**R 0.669 × 0.421 × 0.268 (inch)**

### Dimensions

| d <sub>a</sub> (mm) | d <sub>i</sub> (mm) | Height (mm) | d <sub>a</sub> (inch) | d <sub>i</sub> (inch) | Height (inch) |                        |
|---------------------|---------------------|-------------|-----------------------|-----------------------|---------------|------------------------|
| 17.0 ±0.4           | 10.7 ±0.3           | 6.80 ±0.2   | 0.669 ±0.016          | 0.421 ±0.012          | 0.268 ±0.008  | uncoated <sup>1)</sup> |
| 18.2 max.           | 9.6 min.            | 7.8 max.    | 0.717 max.            | 0.378 min.            | 0.307 max.    | coated                 |

### Characteristics and ordering codes

| Material | A <sub>L</sub> value<br>nH | μ <sub>i</sub><br>(approx.) | Ordering code   | Magnetic characteristics |                      |                                   |                                   | Approx.<br>weight<br>g |
|----------|----------------------------|-----------------------------|-----------------|--------------------------|----------------------|-----------------------------------|-----------------------------------|------------------------|
|          |                            |                             |                 | ΣI/A<br>mm <sup>-1</sup> | l <sub>e</sub><br>mm | A <sub>e</sub><br>mm <sup>2</sup> | V <sub>e</sub><br>mm <sup>3</sup> |                        |
| N87      | 1390 ±25%                  | 2200                        | B64290L0652X087 | 2.00                     | 42.00                | 21.04                             | 884                               | 4.4                    |
| N30      | 2710 ±25%                  | 4300                        | B64290L0652X830 |                          |                      |                                   |                                   |                        |
| T65      | 3250 ±30%                  | 5200                        | B64290L0652X065 |                          |                      |                                   |                                   |                        |
| T35      | 3770 ±25%                  | 6000                        | B64290L0652X035 |                          |                      |                                   |                                   |                        |
| T37      | 4080 ±25%                  | 6500                        | B64290L0652X037 |                          |                      |                                   |                                   |                        |
| T38      | 6280 ±30%                  | 10000                       | B64290L0652X038 |                          |                      |                                   |                                   |                        |

N87: P<sub>V</sub> (200 mT, 100 kHz, 100 °C) < 0.55 W/core

■ Epoxy coating

**R 18.4 × 5.90 × 5.90 (mm)**
**R 0.724 × 0.232 × 0.232 (inch)**

### Dimensions

| d <sub>a</sub> (mm) | d <sub>i</sub> (mm) | Height (mm) | d <sub>a</sub> (inch) | d <sub>i</sub> (inch) | Height (inch) |                        |
|---------------------|---------------------|-------------|-----------------------|-----------------------|---------------|------------------------|
| 18.4 ±0.4           | 5.9 ±0.3            | 5.90 ±0.2   | 0.724 ±0.016          | 0.232 ±0.012          | 0.232 ±0.008  | uncoated <sup>1)</sup> |
| 19.5 max.           | 4.8 min.            | 6.7 max.    | 0.768 max.            | 0.189 min.            | 0.264 max.    | coated                 |

### Characteristics and ordering codes

| Material | A <sub>L</sub> value<br>nH | μ <sub>i</sub><br>(approx.) | Ordering code   | Magnetic characteristics |                      |                                   |                                   | Approx.<br>weight<br>g |
|----------|----------------------------|-----------------------------|-----------------|--------------------------|----------------------|-----------------------------------|-----------------------------------|------------------------|
|          |                            |                             |                 | ΣI/A<br>mm <sup>-1</sup> | l <sub>e</sub><br>mm | A <sub>e</sub><br>mm <sup>2</sup> | V <sub>e</sub><br>mm <sup>3</sup> |                        |
| N87      | 2950 ±25%                  | 2200                        | B64290L0697X087 | 0.94                     | 31.03                | 33.14                             | 1029                              | 6.9                    |
| N30      | 5770 ±25%                  | 4300                        | B64290L0697X830 |                          |                      |                                   |                                   |                        |
| T65      | 6680 ±30%                  | 5000                        | B64290L0697X065 |                          |                      |                                   |                                   |                        |
| T35      | 8020 ±25%                  | 6000                        | B64290L0697X035 |                          |                      |                                   |                                   |                        |
| T37      | 8690 ±25%                  | 6500                        | B64290L0697X037 |                          |                      |                                   |                                   |                        |
| T38      | 13400 ±30%                 | 10000                       | B64290L0697X038 |                          |                      |                                   |                                   |                        |

N87: P<sub>V</sub> (200 mT, 100 kHz, 100 °C) < 0.82 W/core

**R 20.0 × 10.0 × 7.00**
**B64290L0632**
**R 22.1 × 13.7 × 6.35**
**B64290L0638**

■ Epoxy coating

**R 20.0 × 10.0 × 7.00 (mm)**
**R 0.787 × 0.394 × 0.276 (inch)**

### Dimensions

| $d_a$ (mm) | $d_i$ (mm) | Height (mm) | $d_a$ (inch) | $d_i$ (inch) | Height (inch) |                        |
|------------|------------|-------------|--------------|--------------|---------------|------------------------|
| 20.0 ±0.4  | 10.0 ±0.25 | 7.00 ±0.3   | 0.787 ±0.016 | 0.394 ±0.010 | 0.276 ±0.012  | uncoated <sup>1)</sup> |
| 21.2 max.  | 8.95 min.  | 8.1 max.    | 0.835 max.   | 0.352 min.   | 0.319 max.    | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                          |                          | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|--------------------------|--------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>mm <sup>-1</sup> | $l_e$<br>mm | $A_e$<br>mm <sup>2</sup> | $V_e$<br>mm <sup>3</sup> |                        |
| N87      | 2130 ±25%         | 2200                 | B64290L0632X087 | 1.30                             | 43.55       | 33.63                    | 1465                     | 7.6                    |
| N30      | 4160 ±25%         | 4300                 | B64290L0632X830 |                                  |             |                          |                          |                        |
| T35      | 5000 ±25%         | 5100                 | B64290L0632X035 |                                  |             |                          |                          |                        |
| T65      | 5050 ±30%         | 5200                 | B64290L0632X065 |                                  |             |                          |                          |                        |
| T37      | 6280 ±25%         | 6500                 | B64290L0632X037 |                                  |             |                          |                          |                        |
| T38      | 9740 ±30%         | 10000                | B64290L0632X038 |                                  |             |                          |                          |                        |

N87:  $P_V$  (200 mT, 100 kHz, 100 °C) < 0.95 W/core

■ Epoxy coating

**R 22.1 × 13.7 × 6.35 (mm)**
**R 0.870 × 0.539 × 0.250 (inch)**

### Dimensions

| $d_a$ (mm) | $d_i$ (mm) | Height (mm) | $d_a$ (inch) | $d_i$ (inch) | Height (inch) |                        |
|------------|------------|-------------|--------------|--------------|---------------|------------------------|
| 22.1 ±0.4  | 13.7 ±0.3  | 6.35 ±0.3   | 0.870 ±0.016 | 0.539 ±0.012 | 0.250 ±0.012  | uncoated <sup>1)</sup> |
| 23.3 max.  | 12.6 min.  | 7.4 max.    | 0.917 max.   | 0.496 min.   | 0.291 max.    | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                          |                          | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|--------------------------|--------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>mm <sup>-1</sup> | $l_e$<br>mm | $A_e$<br>mm <sup>2</sup> | $V_e$<br>mm <sup>3</sup> |                        |
| N87      | 1340 ±25%         | 2200                 | B64290L0638X087 | 2.07                             | 54.15       | 26.17                    | 1417                     | 6.8                    |
| N30      | 2610 ±25%         | 4300                 | B64290L0638X830 |                                  |             |                          |                          |                        |
| T65      | 3160 ±30%         | 5200                 | B64290L0638X065 |                                  |             |                          |                          |                        |
| T35      | 3200 ±25%         | 5300                 | B64290L0638X035 |                                  |             |                          |                          |                        |
| T37      | 3950 ±25%         | 6500                 | B64290L0638X037 |                                  |             |                          |                          |                        |
| T38      | 6070 ±30%         | 10000                | B64290L0638X038 |                                  |             |                          |                          |                        |

N87:  $P_V$  (200 mT, 100 kHz, 100 °C) < 0.85 W/core

**R 22.1 × 13.7 × 7.90**
**B64290L0719**
**R 22.1 × 13.7 × 12.5**
**B64290L0651**

■ Epoxy coating

**R 22.1 × 13.7 × 7.90 (mm)**
**R 0.870 × 0.539 × 0.311 (inch)**

### Dimensions

| d <sub>a</sub> (mm) | d <sub>i</sub> (mm) | Height (mm) | d <sub>a</sub> (inch) | d <sub>i</sub> (inch) | Height (inch) |                        |
|---------------------|---------------------|-------------|-----------------------|-----------------------|---------------|------------------------|
| 22.1 ±0.4           | 13.7 ±0.3           | 7.90 ±0.3   | 0.870 ±0.016          | 0.539 ±0.012          | 0.311 ±0.012  | uncoated <sup>1)</sup> |
| 23.3 max.           | 12.6 min.           | 9.0 max.    | 0.917 max.            | 0.496 min.            | 0.354 max.    | coated                 |

### Characteristics and ordering codes

| Material | A <sub>L</sub> value<br>nH | μ <sub>i</sub><br>(approx.) | Ordering code   | Magnetic characteristics |                      |                                   |                                   | Approx.<br>weight<br>g |
|----------|----------------------------|-----------------------------|-----------------|--------------------------|----------------------|-----------------------------------|-----------------------------------|------------------------|
|          |                            |                             |                 | ΣI/A<br>mm <sup>-1</sup> | I <sub>e</sub><br>mm | A <sub>e</sub><br>mm <sup>2</sup> | V <sub>e</sub><br>mm <sup>3</sup> |                        |
| N49      | 1130 ±25%                  | 1500                        | B64290L0719X049 | 1.66                     | 54.2                 | 32.6                              | 1763                              | 8.4                    |
| N87      | 1660 ±25%                  | 2200                        | B64290L0719X087 |                          |                      |                                   |                                   |                        |
| N30      | 3250 ±25%                  | 4300                        | B64290L0719X830 |                          |                      |                                   |                                   |                        |
| T65      | 3930 ±30%                  | 5200                        | B64290L0719X065 |                          |                      |                                   |                                   |                        |
| T35      | 4000 ±25%                  | 5300                        | B64290L0719X035 |                          |                      |                                   |                                   |                        |
| T37      | 4900 ±25%                  | 6500                        | B64290L0719X037 |                          |                      |                                   |                                   |                        |
| T38      | 7570 ±30%                  | 10000                       | B64290L0719X038 |                          |                      |                                   |                                   |                        |

N49: P<sub>V</sub> ( 50 mT, 500 kHz, 100 °C) < 0.30 W/core

N87: P<sub>V</sub> (200 mT, 100 kHz, 100 °C) < 1.05 W/core

■ Epoxy coating

**R 22.1 × 13.7 × 12.5 (mm)**
**R 0.870 × 0.539 × 0.492 (inch)**

### Dimensions

| d <sub>a</sub> (mm) | d <sub>i</sub> (mm) | Height (mm) | d <sub>a</sub> (inch) | d <sub>i</sub> (inch) | Height (inch) |                        |
|---------------------|---------------------|-------------|-----------------------|-----------------------|---------------|------------------------|
| 22.1 ±0.4           | 13.7 ±0.3           | 12.5 ±0.5   | 0.870 ±0.016          | 0.539 ±0.012          | 0.492 ±0.020  | uncoated <sup>1)</sup> |
| 23.3 max.           | 12.6 min.           | 13.8 max.   | 0.917 max.            | 0.496 min.            | 0.543 max.    | coated                 |

### Characteristics and ordering codes

| Material | A <sub>L</sub> value<br>nH | μ <sub>i</sub><br>(approx.) | Ordering code   | Magnetic characteristics |                      |                                   |                                   | Approx.<br>weight<br>g |
|----------|----------------------------|-----------------------------|-----------------|--------------------------|----------------------|-----------------------------------|-----------------------------------|------------------------|
|          |                            |                             |                 | ΣI/A<br>mm <sup>-1</sup> | I <sub>e</sub><br>mm | A <sub>e</sub><br>mm <sup>2</sup> | V <sub>e</sub><br>mm <sup>3</sup> |                        |
| N87      | 2630 ±25%                  | 2200                        | B64290L0651X087 | 1.05                     | 54.15                | 51.15                             | 2789                              | 14                     |
| N30      | 5140 ±25%                  | 4300                        | B64290L0651X830 |                          |                      |                                   |                                   |                        |
| T35      | 6000 ±25%                  | 5000                        | B64290L0651X035 |                          |                      |                                   |                                   |                        |
| T65      | 6200 ±30%                  | 5200                        | B64290L0651X065 |                          |                      |                                   |                                   |                        |
| T37      | 7770 ±25%                  | 6500                        | B64290L0651X037 |                          |                      |                                   |                                   |                        |
| T38      | 12000 ±30%                 | 10000                       | B64290L0651X038 |                          |                      |                                   |                                   |                        |

N87: P<sub>V</sub> (200 mT, 100 kHz, 100 °C) < 1.75 W/core

**R 22.6 × 14.7 × 9.20**
**B64290L0626**
**R 25.3 × 14.8 × 10.0**
**B64290L0618**

■ Epoxy coating

**R 22.6 × 14.7 × 9.20 (mm)**
**R 0.890 × 0.579 × 0.362 (inch)**

### Dimensions

| d <sub>a</sub> (mm) | d <sub>i</sub> (mm) | Height (mm) | d <sub>a</sub> (inch) | d <sub>i</sub> (inch) | Height (inch) |                        |
|---------------------|---------------------|-------------|-----------------------|-----------------------|---------------|------------------------|
| 22.6 ±0.4           | 14.7 ±0.2           | 9.20 ±0.2   | 0.890 ±0.016          | 0.579 ±0.008          | 0.362 ±0.008  | uncoated <sup>1)</sup> |
| 23.8 max.           | 13.7 min.           | 10.2 max.   | 0.937 max.            | 0.539 min.            | 0.402 max.    | coated                 |

### Characteristics and ordering codes

| Material | A <sub>L</sub> value<br>nH | μ <sub>i</sub><br>(approx.) | Ordering code   | Magnetic characteristics |                      |                                   |                                   | Approx.<br>weight<br>g |
|----------|----------------------------|-----------------------------|-----------------|--------------------------|----------------------|-----------------------------------|-----------------------------------|------------------------|
|          |                            |                             |                 | ΣI/A<br>mm <sup>-1</sup> | l <sub>e</sub><br>mm | A <sub>e</sub><br>mm <sup>2</sup> | V <sub>e</sub><br>mm <sup>3</sup> |                        |
| N87      | 1740 ±25%                  | 2200                        | B64290L0626X087 | 1.59                     | 56.82                | 35.78                             | 2033                              | 9.8                    |
| N30      | 3420 ±25%                  | 4300                        | B64290L0626X830 |                          |                      |                                   |                                   |                        |
| T65      | 4100 ±30%                  | 5200                        | B64290L0626X065 |                          |                      |                                   |                                   |                        |
| T35      | 4200 ±25%                  | 5300                        | B64290L0626X035 |                          |                      |                                   |                                   |                        |
| T37      | 5170 ±25%                  | 6500                        | B64290L0626X037 |                          |                      |                                   |                                   |                        |
| T38      | 7900 ±30%                  | 10000                       | B64290L0626X038 |                          |                      |                                   |                                   |                        |

N87: P<sub>V</sub> (200 mT, 100 kHz, 100 °C) < 1.25 W/core

■ Epoxy coating

**R 25.3 × 14.8 × 10.0 (mm)**
**R 0.996 × 0.583 × 0.394 (inch)**

### Dimensions

| d <sub>a</sub> (mm) | d <sub>i</sub> (mm) | Height (mm) | d <sub>a</sub> (inch) | d <sub>i</sub> (inch) | Height (inch) |                        |
|---------------------|---------------------|-------------|-----------------------|-----------------------|---------------|------------------------|
| 25.3 ±0.5           | 14.8 ±0.5           | 10.0 ±0.2   | 0.996 ±0.020          | 0.583 ±0.020          | 0.394 ±0.008  | uncoated <sup>1)</sup> |
| 26.6 max.           | 13.5 min.           | 11.0 max.   | 1.047 max.            | 0.531 min.            | 0.433 max.    | coated                 |

### Characteristics and ordering codes

| Material | A <sub>L</sub> value<br>nH | μ <sub>i</sub><br>(approx.) | Ordering code   | Magnetic characteristics |                      |                                   |                                   | Approx.<br>weight<br>g |
|----------|----------------------------|-----------------------------|-----------------|--------------------------|----------------------|-----------------------------------|-----------------------------------|------------------------|
|          |                            |                             |                 | ΣI/A<br>mm <sup>-1</sup> | l <sub>e</sub><br>mm | A <sub>e</sub><br>mm <sup>2</sup> | V <sub>e</sub><br>mm <sup>3</sup> |                        |
| N87      | 2360 ±25%                  | 2200                        | B64290L0618X087 | 1.17                     | 60.07                | 51.26                             | 3079                              | 16                     |
| N30      | 4620 ±25%                  | 4300                        | B64290L0618X830 |                          |                      |                                   |                                   |                        |
| T65      | 5350 ±30%                  | 5000                        | B64290L0618X065 |                          |                      |                                   |                                   |                        |
| T35      | 5400 ±25%                  | 5000                        | B64290L0618X035 |                          |                      |                                   |                                   |                        |
| T37      | 6970 ±25%                  | 6500                        | B64290L0618X037 |                          |                      |                                   |                                   |                        |
| T38      | 10700 ±30%                 | 10000                       | B64290L0618X038 |                          |                      |                                   |                                   |                        |

N87: P<sub>V</sub> (200 mT, 100 kHz, 100 °C) < 2 W/core

**R 25.3 × 14.8 × 15.0**
**B64290L0615**
**R 25.3 × 14.8 × 20.0**
**B64290L0616**

■ Epoxy coating

**R 25.3 × 14.8 × 15.0 (mm)**
**R 0.996 × 0.583 × 0.590 (inch)**

### Dimensions

| $d_a$ (mm)     | $d_i$ (mm)     | Height (mm)    | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------|----------------|----------------|-------------------|-------------------|-------------------|------------------------|
| $25.3 \pm 0.5$ | $14.8 \pm 0.5$ | $15.0 \pm 0.4$ | $0.996 \pm 0.020$ | $0.583 \pm 0.020$ | $0.590 \pm 0.016$ | uncoated <sup>1)</sup> |
| 26.6 max.      | 13.5 min.      | 16.2 max.      | 1.047 max.        | 0.531 min.        | 0.638 max.        | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $l_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| N87      | $3500 \pm 25\%$   | 2200                 | B64290L0615X087 | 0.78                             | 60.07       | 76.89                  | 4619                   | 24                     |
| N30      | $6930 \pm 25\%$   | 4300                 | B64290L0615X830 |                                  |             |                        |                        |                        |
| T65      | $8000 \pm 30\%$   | 5000                 | B64290L0615X065 |                                  |             |                        |                        |                        |
| T37      | $10460 \pm 25\%$  | 6500                 | B64290L0615X037 |                                  |             |                        |                        |                        |
| T38      | $16100 \pm 30\%$  | 10000                | B64290L0615X038 |                                  |             |                        |                        |                        |

N87:  $P_V$  (200 mT, 100 kHz, 100 °C) < 3 W/core

■ Epoxy coating

**R 25.3 × 14.8 × 20.0 (mm)**
**R 0.996 × 0.583 × 0.787 (inch)**

### Dimensions

| $d_a$ (mm)     | $d_i$ (mm)     | Height (mm)    | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------|----------------|----------------|-------------------|-------------------|-------------------|------------------------|
| $25.3 \pm 0.5$ | $14.8 \pm 0.5$ | $20.0 \pm 0.5$ | $0.996 \pm 0.020$ | $0.583 \pm 0.020$ | $0.787 \pm 0.020$ | uncoated <sup>1)</sup> |
| 26.6 max.      | 13.5 min.      | 21.3 max.      | 1.047 max.        | 0.531 min.        | 0.839 max.        | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $l_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| N87      | $4680 \pm 25\%$   | 2200                 | B64290L0616X087 | 0.59                             | 60.07       | 102.5                  | 6157                   | 33                     |
| N30      | $9160 \pm 25\%$   | 4300                 | B64290L0616X830 |                                  |             |                        |                        |                        |
| T65      | $10600 \pm 30\%$  | 5000                 | B64290L0616X065 |                                  |             |                        |                        |                        |
| T35      | $10700 \pm 25\%$  | 5000                 | B64290L0616X035 |                                  |             |                        |                        |                        |
| T37      | $13800 \pm 25\%$  | 6400                 | B64290L0616X037 |                                  |             |                        |                        |                        |
| T38      | $21300 \pm 30\%$  | 10000                | B64290L0616X038 |                                  |             |                        |                        |                        |

N87:  $P_V$  (200 mT, 100 kHz, 100 °C) < 4.1 W/core

**R 29.5 × 19.0 × 14.9**
**B64290L0647**
**R 30.5 × 20.0 × 12.5**
**B64290L0657**

■ Epoxy coating

**R 29.5 × 19.0 × 14.9 (mm)**
**R 1.142 × 0.748 × 0.587 (inch)**

### Dimensions

| d <sub>a</sub> (mm) | d <sub>i</sub> (mm) | Height (mm) | d <sub>a</sub> (inch) | d <sub>i</sub> (inch) | Height (inch) |                        |
|---------------------|---------------------|-------------|-----------------------|-----------------------|---------------|------------------------|
| 29.5 ±0.7           | 19.0 ±0.5           | 14.9 ±0.4   | 1.142 ±0.028          | 0.748 ±0.020          | 0.587 ±0.016  | uncoated <sup>1)</sup> |
| 31.0 max.           | 17.7 min.           | 16.1 max.   | 1.220 max.            | 0.697 min.            | 0.634 max.    | coated                 |

### Characteristics and ordering codes

| Material | A <sub>L</sub> value<br>nH | μ <sub>i</sub><br>(approx.) | Ordering code   | Magnetic characteristics |                      |                                   |                                   | Approx.<br>weight<br>g |
|----------|----------------------------|-----------------------------|-----------------|--------------------------|----------------------|-----------------------------------|-----------------------------------|------------------------|
|          |                            |                             |                 | ΣI/A<br>mm <sup>-1</sup> | I <sub>e</sub><br>mm | A <sub>e</sub><br>mm <sup>2</sup> | V <sub>e</sub><br>mm <sup>3</sup> |                        |
| N87      | 2880 ±25%                  | 2200                        | B64290L0647X087 | 0.96                     | 73.78                | 76.98                             | 5680                              | 27                     |
| N30      | 5630 ±25%                  | 4300                        | B64290L0647X830 |                          |                      |                                   |                                   |                        |
| T65      | 6800 ±30%                  | 5200                        | B64290L0647X065 |                          |                      |                                   |                                   |                        |
| T37      | 8500 ±25%                  | 6500                        | B64290L0647X037 |                          |                      |                                   |                                   |                        |
| T38      | 13100 ±30%                 | 10000                       | B64290L0647X038 |                          |                      |                                   |                                   |                        |

N87: P<sub>V</sub> (200 mT, 100 kHz, 100 °C) < 2.95 W/core

■ Epoxy coating

**R 30.5 × 20.0 × 12.5 (mm)**
**R 1.201 × 0.787 × 0.492 (inch)**

### Dimensions

| d <sub>a</sub> (mm) | d <sub>i</sub> (mm) | Height (mm) | d <sub>a</sub> (inch) | d <sub>i</sub> (inch) | Height (inch) |                        |
|---------------------|---------------------|-------------|-----------------------|-----------------------|---------------|------------------------|
| 30.5 ±1.0           | 20.0 ±0.6           | 12.5 ±0.4   | 1.201 ±0.039          | 0.787 ±0.024          | 0.492 ±0.016  | uncoated <sup>1)</sup> |
| 32.1 max.           | 18.8 min.           | 13.5 max.   | 1.264 max.            | 0.694 min.            | 0.531 max.    | coated                 |

### Characteristics and ordering codes

| Material | A <sub>L</sub> value<br>nH | μ <sub>i</sub><br>(approx.) | Ordering code   | Magnetic characteristics |                      |                                   |                                   | Approx.<br>weight<br>g |
|----------|----------------------------|-----------------------------|-----------------|--------------------------|----------------------|-----------------------------------|-----------------------------------|------------------------|
|          |                            |                             |                 | ΣI/A<br>mm <sup>-1</sup> | I <sub>e</sub><br>mm | A <sub>e</sub><br>mm <sup>2</sup> | V <sub>e</sub><br>mm <sup>3</sup> |                        |
| N87      | 2320 ±25%                  | 2200                        | B64290L0657X087 | 1.19                     | 77.02                | 64.66                             | 4980                              | 25                     |
| N30      | 4540 ±25%                  | 4300                        | B64290L0657X830 |                          |                      |                                   |                                   |                        |
| T65      | 5400 ±30%                  | 5100                        | B64290L0657X065 |                          |                      |                                   |                                   |                        |
| T37      | 6400 ±25%                  | 6100                        | B64290L0657X037 |                          |                      |                                   |                                   |                        |
| T38      | 10600 ±30%                 | 10000                       | B64290L0657X038 |                          |                      |                                   |                                   |                        |

N87: P<sub>V</sub> (200 mT, 100 kHz, 100 °C) < 2.65 W/core

**R 34.0 × 20.5 × 10.0**
**B64290L0058**
**R 34.0 × 20.5 × 12.5**
**B64290L0048**

■ Epoxy coating

**R 34.0 × 20.5 × 10.0 (mm)**
**R 1.339 × 0.807 × 0.394 (inch)**

### Dimensions

| $d_a$ (mm)     | $d_i$ (mm)     | Height (mm)    | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------|----------------|----------------|-------------------|-------------------|-------------------|------------------------|
| $34.0 \pm 0.7$ | $20.5 \pm 0.5$ | $10.0 \pm 0.3$ | $1.339 \pm 0.028$ | $0.807 \pm 0.020$ | $0.394 \pm 0.012$ | uncoated <sup>1)</sup> |
| 35.5 max.      | 19.2 min.      | 11.1 max.      | 1.398 max.        | 0.756 min.        | 0.437 max.        | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $l_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| N87      | $2230 \pm 25\%$   | 2200                 | B64290L0058X087 | 1.24                             | 82.06       | 66.08                  | 5423                   | 27                     |
| N30      | $4360 \pm 25\%$   | 4300                 | B64290L0058X830 |                                  |             |                        |                        |                        |
| T65      | $5100 \pm 30\%$   | 5000                 | B64290L0058X065 |                                  |             |                        |                        |                        |
| T37      | $6100 \pm 25\%$   | 6000                 | B64290L0058X037 |                                  |             |                        |                        |                        |
| T38      | $10100 \pm 30\%$  | 10000                | B64290L0058X038 |                                  |             |                        |                        |                        |

N87:  $P_V$  (200 mT, 100 kHz, 100 °C) < 3.4 W/core

■ Epoxy coating

**R 34.0 × 20.5 × 12.5 (mm)**
**R 1.339 × 0.807 × 0.492 (inch)**

### Dimensions

| $d_a$ (mm)     | $d_i$ (mm)     | Height (mm)    | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------|----------------|----------------|-------------------|-------------------|-------------------|------------------------|
| $34.0 \pm 0.7$ | $20.5 \pm 0.5$ | $12.5 \pm 0.3$ | $1.339 \pm 0.028$ | $0.807 \pm 0.020$ | $0.492 \pm 0.012$ | uncoated <sup>1)</sup> |
| 35.5 max.      | 19.2 min.      | 13.6 max.      | 1.398 max.        | 0.756 min.        | 0.535 max.        | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $l_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| N87      | $2790 \pm 25\%$   | 2200                 | B64290L0048X087 | 0.99                             | 82.06       | 82.60                  | 6778                   | 33                     |
| N30      | $5460 \pm 25\%$   | 4300                 | B64290L0048X830 |                                  |             |                        |                        |                        |
| T65      | $6400 \pm 30\%$   | 5000                 | B64290L0048X065 |                                  |             |                        |                        |                        |
| T37      | $7600 \pm 25\%$   | 6000                 | B64290L0048X037 |                                  |             |                        |                        |                        |
| T38      | $12700 \pm 30\%$  | 10000                | B64290L0048X038 |                                  |             |                        |                        |                        |

N87:  $P_V$  (200 mT, 100 kHz, 100 °C) < 4.2 W/core

**R 36.0 × 23.0 × 15.0**
**B64290L0674**
**R 38.1 × 19.05 × 12.7**
**B64290L0668**

■ Epoxy coating

**R 36.0 × 23.0 × 15.0 (mm)**
**R 1.417 × 0.906 × 0.591 (inch)**

### Dimensions

| $d_a$ (mm)     | $d_i$ (mm)     | Height (mm)    | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------|----------------|----------------|-------------------|-------------------|-------------------|------------------------|
| $36.0 \pm 0.7$ | $23.0 \pm 0.5$ | $15.0 \pm 0.4$ | $1.417 \pm 0.028$ | $0.906 \pm 0.020$ | $0.591 \pm 0.016$ | uncoated <sup>1)</sup> |
| 37.5 max.      | 21.7 min.      | 16.2 max.      | 1.476 max.        | 0.854 min.        | 0.638 max.        | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $l_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| N87      | $2940 \pm 25\%$   | 2200                 | B64290L0674X087 | 0.94                             | 89.65       | 95.89                  | 8597                   | 43                     |
| N30      | $5750 \pm 25\%$   | 4300                 | B64290L0674X830 |                                  |             |                        |                        |                        |
| T65      | $6800 \pm 30\%$   | 5000                 | B64290L0674X065 |                                  |             |                        |                        |                        |
| T37      | $8000 \pm 25\%$   | 6000                 | B64290L0674X037 |                                  |             |                        |                        |                        |
| T38      | $13500 \pm 30\%$  | 10000                | B64290L0674X038 |                                  |             |                        |                        |                        |

N87:  $P_V$  (200 mT, 100 kHz, 100 °C) < 5.4 W/core

■ Epoxy coating

**R 38.1 × 19.05 × 12.7 (mm)**
**R 1.500 × 0.750 × 0.500 (inch)**

### Dimensions

| $d_a$ (mm)     | $d_i$ (mm)      | Height (mm)    | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------|-----------------|----------------|-------------------|-------------------|-------------------|------------------------|
| $38.1 \pm 0.5$ | $19.05 \pm 0.4$ | $12.7 \pm 0.3$ | $1.500 \pm 0.020$ | $0.750 \pm 0.016$ | $0.500 \pm 0.012$ | uncoated <sup>1)</sup> |
| 39.4 max.      | 17.85 min.      | 13.8 max.      | 1.551 max.        | 0.703 min.        | 0.543 max.        | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $l_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| N87      | $3870 \pm 25\%$   | 2200                 | B64290L0668X087 | 0.71                             | 82.97       | 116.2                  | 9644                   | 52                     |
| N30      | $7570 \pm 25\%$   | 4300                 | B64290L0668X830 |                                  |             |                        |                        |                        |
| T65      | $8800 \pm 30\%$   | 5000                 | B64290L0668X065 |                                  |             |                        |                        |                        |
| T37      | $10500 \pm 25\%$  | 6000                 | B64290L0668X037 |                                  |             |                        |                        |                        |
| T38      | $17600 \pm 30\%$  | 10000                | B64290L0668X038 |                                  |             |                        |                        |                        |

N87:  $P_V$  (200 mT, 100 kHz, 100 °C) < 6.5 W/core

**R 40.0 × 24.0 × 16.0**
**B64290L0659**
**R 41.8 × 26.2 × 12.5**
**B64290L0022**

■ Epoxy coating

**R 40.0 × 24.0 × 16.0 (mm)**
**R 1.575 × 0.945 × 0.630 (inch)**

### Dimensions

| $d_a$ (mm)     | $d_i$ (mm)     | Height (mm)    | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------|----------------|----------------|-------------------|-------------------|-------------------|------------------------|
| $40.0 \pm 1.0$ | $24.0 \pm 0.7$ | $16.0 \pm 0.4$ | $1.575 \pm 0.039$ | $0.945 \pm 0.028$ | $0.630 \pm 0.016$ | uncoated <sup>1)</sup> |
| 41.8 max.      | 22.5 min.      | 17.2 max.      | 1.646 max.        | 0.886 min.        | 0.677 max.        | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $l_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| N87      | $3590 \pm 25\%$   | 2200                 | B64290L0659X087 | 0.77                             | 96.29       | 125.3                  | 12070                  | 61                     |
| N30      | $7000 \pm 25\%$   | 4300                 | B64290L0659X830 |                                  |             |                        |                        |                        |
| T65      | $8200 \pm 30\%$   | 5000                 | B64290L0659X065 |                                  |             |                        |                        |                        |
| T35      | $8200 \pm 25\%$   | 5000                 | B64290L0659X035 |                                  |             |                        |                        |                        |
| T37      | $9800 \pm 25\%$   | 6000                 | B64290L0659X037 |                                  |             |                        |                        |                        |

N87:  $P_V$  (200 mT, 100 kHz, 100 °C) < 7.6 W/core

■ Epoxy coating

**R 41.8 × 26.2 × 12.5 (mm)**
**R 1.646 × 1.031 × 0.492 (inch)**

### Dimensions

| $d_a$ (mm)     | $d_i$ (mm)     | Height (mm)    | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------|----------------|----------------|-------------------|-------------------|-------------------|------------------------|
| $41.8 \pm 1.0$ | $26.2 \pm 0.6$ | $12.5 \pm 0.3$ | $1.646 \pm 0.039$ | $1.031 \pm 0.024$ | $0.492 \pm 0.012$ | uncoated <sup>1)</sup> |
| 43.6 max.      | 24.8 min.      | 13.6 max.      | 1.717 max.        | 0.976 min.        | 0.535 max.        | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $l_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| N87      | $2560 \pm 25\%$   | 2200                 | B64290L0022X087 | 1.08                             | 103.0       | 95.75                  | 9862                   | 50                     |
| N30      | $5000 \pm 25\%$   | 4300                 | B64290L0022X830 |                                  |             |                        |                        |                        |
| T65      | $5800 \pm 30\%$   | 5000                 | B64290L0022X065 |                                  |             |                        |                        |                        |
| T37      | $7000 \pm 25\%$   | 6000                 | B64290L0022X037 |                                  |             |                        |                        |                        |
| T38      | $11600 \pm 30\%$  | 10000                | B64290L0022X038 |                                  |             |                        |                        |                        |

N87:  $P_V$  (200 mT, 100 kHz, 100 °C) < 6 W/core

**R 50.0 × 30.0 × 20.0**
**B64290L0082**
**R 58.3 × 32.0 × 18.0**
**B64290L0043**

■ Epoxy coating

**R 50.0 × 30.0 × 20.0 (mm)**
**R 1.969 × 1.181 × 0.787 (inch)**

### Dimensions

| $d_a$ (mm)     | $d_i$ (mm)     | Height (mm)    | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------|----------------|----------------|-------------------|-------------------|-------------------|------------------------|
| $50.0 \pm 1.0$ | $30.0 \pm 0.7$ | $20.0 \pm 0.5$ | $1.969 \pm 0.039$ | $1.181 \pm 0.028$ | $0.787 \pm 0.020$ | uncoated <sup>1)</sup> |
| 51.8 max.      | 28.5 min.      | 21.3 max.      | 2.039 max.        | 1.122 min.        | 0.839 max.        | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                          |                          | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|--------------------------|--------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>mm <sup>-1</sup> | $l_e$<br>mm | $A_e$<br>mm <sup>2</sup> | $V_e$<br>mm <sup>3</sup> |                        |
| K10      | $1400 \pm 25\%$   | 700                  | B64290A0082X010 | 0.62                             | 120.4       | 195.7                    | 23560                    | 120                    |
| N87      | $4460 \pm 25\%$   | 2200                 | B64290L0082X087 |                                  |             |                          |                          |                        |
| N30      | $8700 \pm 25\%$   | 4300                 | B64290L0082X830 |                                  |             |                          |                          |                        |
| T65      | $10000 \pm 30\%$  | 4900                 | B64290L0082X065 |                                  |             |                          |                          |                        |
| T37      | $12000 \pm 25\%$  | 6000                 | B64290L0082X037 |                                  |             |                          |                          |                        |
| T38      | $17400 \pm 30\%$  | 8500                 | B64290L0082X038 |                                  |             |                          |                          |                        |

N87:  $P_V$  (200 mT, 100 kHz, 100 °C) < 14.2 W/core

■ Epoxy coating

**R 58.3 × 32.0 × 18.0 (mm)**
**R 2.295 × 1.260 × 0.709 (inch)**

### Dimensions

| $d_a$ (mm)     | $d_i$ (mm)     | Height (mm)    | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------|----------------|----------------|-------------------|-------------------|-------------------|------------------------|
| $58.3 \pm 1.0$ | $32.0 \pm 0.7$ | $18.0 \pm 0.5$ | $2.295 \pm 0.039$ | $1.260 \pm 0.028$ | $0.709 \pm 0.020$ | uncoated <sup>1)</sup> |
| 60.1 max.      | 30.5 min.      | 19.3 max.      | 2.366 max.        | 1.201 min.        | 0.760 max.        | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                          |                          | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|--------------------------|--------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>mm <sup>-1</sup> | $l_e$<br>mm | $A_e$<br>mm <sup>2</sup> | $V_e$<br>mm <sup>3</sup> |                        |
| K10      | $1500 \pm 25\%$   | 700                  | B64290A0043X010 | 0.58                             | 134.0       | 230.0                    | 30710                    | 160                    |
| N87      | $4800 \pm 25\%$   | 2200                 | B64290L0043X087 |                                  |             |                          |                          |                        |
| N30      | $9300 \pm 25\%$   | 4300                 | B64290L0043X830 |                                  |             |                          |                          |                        |
| T37      | $13000 \pm 25\%$  | 6000                 | B64290L0043X037 |                                  |             |                          |                          |                        |

N87:  $P_V$  (200 mT, 100 kHz, 100 °C) < 19 W/core

**R 58.3 × 40.8 × 17.6**
**B64290L0040**
**R 58.3 × 40.8 × 20.2**
**B64290L0042**

■ Epoxy coating

**R 58.3 × 40.8 × 17.6 (mm)**
**R 2.295 × 1.606 × 0.693 (inch)**

### Dimensions

| $d_a$ (mm)     | $d_i$ (mm)     | Height (mm)    | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------|----------------|----------------|-------------------|-------------------|-------------------|------------------------|
| $58.3 \pm 1.0$ | $40.8 \pm 0.8$ | $17.6 \pm 0.4$ | $2.295 \pm 0.039$ | $1.606 \pm 0.031$ | $0.693 \pm 0.016$ | uncoated <sup>1)</sup> |
| 60.1 max.      | 39.2 min.      | 18.8 max.      | 2.366 max.        | 1.543 min.        | 0.740 max.        | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $l_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| K10      | $900 \pm 25\%$    | 700                  | B64290A0040X010 | 1.00                             | 152.4       | 152.4                  | 23230                  | 115                    |
| N87      | $2760 \pm 25\%$   | 2200                 | B64290L0040X087 |                                  |             |                        |                        |                        |
| N30      | $5400 \pm 25\%$   | 4300                 | B64290L0040X830 |                                  |             |                        |                        |                        |
| T65      | $6250 \pm 30\%$   | 5000                 | B64290L0040X065 |                                  |             |                        |                        |                        |
| T37      | $7160 \pm 25\%$   | 5700                 | B64290L0040X037 |                                  |             |                        |                        |                        |

N87:  $P_V$  (200 mT, 100 kHz, 100 °C) < 14.5 W/core

■ Epoxy coating

**R 58.3 × 40.8 × 20.2 (mm)**
**R 2.295 × 1.606 × 0.795 (inch)**

### Dimensions

| $d_a$ (mm)     | $d_i$ (mm)     | Height (mm)    | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------|----------------|----------------|-------------------|-------------------|-------------------|------------------------|
| $58.3 \pm 1.0$ | $40.8 \pm 0.8$ | $20.2 \pm 0.5$ | $2.295 \pm 0.039$ | $1.606 \pm 0.031$ | $0.795 \pm 0.020$ | uncoated <sup>1)</sup> |
| 60.1 max.      | 39.2 min.      | 21.5 max.      | 2.366 max.        | 1.543 min.        | 0.846 max.        | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $l_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| K10      | $1000 \pm 25\%$   | 700                  | B64290A0042X010 | 0.87                             | 152.4       | 174.9                  | 26660                  | 130                    |
| N87      | $3200 \pm 25\%$   | 2200                 | B64290L0042X087 |                                  |             |                        |                        |                        |
| N30      | $6200 \pm 25\%$   | 4300                 | B64290L0042X830 |                                  |             |                        |                        |                        |
| T65      | $7200 \pm 30\%$   | 5000                 | B64290L0042X065 |                                  |             |                        |                        |                        |
| T37      | $8000 \pm 25\%$   | 5600                 | B64290L0042X037 |                                  |             |                        |                        |                        |

N87:  $P_V$  (200 mT, 100 kHz, 100 °C) < 16.6 W/core

**R 63.0 × 38.0 × 25.0**
**B64290L0699**
**R 68.0 × 48.0 × 13.0**
**B64290L0696**

■ Epoxy coating

**R 63.0 × 38.0 × 25.0 (mm)**
**R 2.480 × 1.496 × 0.984 (inch)**

### Dimensions

| $d_a$ (mm)     | $d_i$ (mm)     | Height (mm)    | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------|----------------|----------------|-------------------|-------------------|-------------------|------------------------|
| $63.0 \pm 1.5$ | $38.0 \pm 1.2$ | $25.0 \pm 0.8$ | $2.480 \pm 0.059$ | $1.496 \pm 0.047$ | $0.984 \pm 0.031$ | uncoated <sup>1)</sup> |
| 65.3 max.      | 36.0 min.      | 26.6 max.      | 2.571 max.        | 1.417 min.        | 1.047 max.        | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $l_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| K10      | $1800 \pm 25\%$   | 700                  | B64290A0699X010 | 0.50                             | 152.1       | 305.9                  | 46530                  | 240                    |
| N87      | $5000 \pm 25\%$   | 2200                 | B64290L0699X087 |                                  |             |                        |                        |                        |
| N30      | $10800 \pm 25\%$  | 4300                 | B64290L0699X830 |                                  |             |                        |                        |                        |
| T65      | $12600 \pm 30\%$  | 5000                 | B64290L0699X065 |                                  |             |                        |                        |                        |
| T37      | $13900 \pm 25\%$  | 5500                 | B64290L0699X037 |                                  |             |                        |                        |                        |

N87:  $P_V$  (100 mT, 100 kHz, 100 °C) < 5.2 W/core

■ Epoxy coating

**R 68.0 × 48.0 × 13.0 (mm)**
**R 2.677 × 1.890 × 0.512 (inch)**

### Dimensions

| $d_a$ (mm)     | $d_i$ (mm)     | Height (mm)    | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------|----------------|----------------|-------------------|-------------------|-------------------|------------------------|
| $68.0 \pm 1.2$ | $48.0 \pm 1.0$ | $13.0 \pm 0.4$ | $2.677 \pm 0.047$ | $1.890 \pm 0.039$ | $0.512 \pm 0.015$ | uncoated <sup>1)</sup> |
| 70.0 max.      | 46.2 min.      | 14.2 max.      | 2.756 max.        | 1.819 min.        | 0.559 max.        | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $l_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| K10      | $600 \pm 25\%$    | 700                  | B64290A0696X010 | 1.39                             | 178.6       | 128.7                  | 22980                  | 115                    |
| N87      | $1990 \pm 25\%$   | 2200                 | B64290L0696X087 |                                  |             |                        |                        |                        |
| N30      | $3890 \pm 25\%$   | 4300                 | B64290L0696X830 |                                  |             |                        |                        |                        |
| T65      | $4500 \pm 30\%$   | 5000                 | B64290L0696X065 |                                  |             |                        |                        |                        |
| T37      | $5000 \pm 25\%$   | 5500                 | B64290L0696X037 |                                  |             |                        |                        |                        |

N87:  $P_V$  (200 mT, 100 kHz, 100 °C) < 13 W/core

**R 87.0 × 54.3 × 13.5**
**B64290L0730**
**R 102 × 65.8 × 15.0**
**B64290L0084**

■ Epoxy coating

**R 87.0 × 54.3 × 13.5 (mm)**
**R 3.425 × 2.138 × 0.531 (inch)**

### Dimensions

| $d_a$ (mm)     | $d_i$ (mm)     | Height (mm)    | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|----------------|----------------|----------------|-------------------|-------------------|-------------------|------------------------|
| $87.0 \pm 1.5$ | $54.3 \pm 1.1$ | $13.5 \pm 0.3$ | $3.425 \pm 0.059$ | $2.138 \pm 0.043$ | $0.531 \pm 0.012$ | uncoated <sup>1)</sup> |
| 89.3 max.      | 52.4 min.      | 14.8 max.      | 3.516 max.        | 2.063 min.        | 0.583 max.        | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $l_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| K10      | $900 \pm 25\%$    | 700                  | B64290A0730X010 | 0.99                             | 213.9       | 216.7                  | 46360                  | 235                    |
| N87      | $2790 \pm 25\%$   | 2200                 | B64290L0730X087 |                                  |             |                        |                        |                        |
| N30      | $5400 \pm 25\%$   | 4300                 | B64290L0730X830 |                                  |             |                        |                        |                        |
| T65      | $6280 \pm 30\%$   | 5000                 | B64290L0730X065 |                                  |             |                        |                        |                        |
| T37      | $7000 \pm 25\%$   | 5500                 | B64290L0730X037 |                                  |             |                        |                        |                        |

N87:  $P_V$  (100 mT, 100 kHz, 100 °C) < 5 W/core

■ Epoxy coating

**R 102 × 65.8 × 15.0 (mm)**
**R 4.016 × 2.591 × 0.591 (inch)**

### Dimensions

| $d_a$ (mm)      | $d_i$ (mm)     | Height (mm)    | $d_a$ (inch)      | $d_i$ (inch)      | Height (inch)     |                        |
|-----------------|----------------|----------------|-------------------|-------------------|-------------------|------------------------|
| $102.0 \pm 2.0$ | $65.8 \pm 1.3$ | $15.0 \pm 0.5$ | $4.016 \pm 0.079$ | $2.591 \pm 0.051$ | $0.591 \pm 0.020$ | uncoated <sup>1)</sup> |
| 104.8 max.      | 63.7 min.      | 16.5 max.      | 4.126 max.        | 2.508 min.        | 0.650 max.        | coated                 |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                        |                        | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|------------------------|------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>$\text{mm}^{-1}$ | $l_e$<br>mm | $A_e$<br>$\text{mm}^2$ | $V_e$<br>$\text{mm}^3$ |                        |
| K10      | $900 \pm 25\%$    | 700                  | B64290A0084X010 | 0.96                             | 255.3       | 267.2                  | 68220                  | 330                    |
| N87      | $2880 \pm 25\%$   | 2200                 | B64290L0084X087 |                                  |             |                        |                        |                        |
| N30      | $5500 \pm 25\%$   | 4200                 | B64290L0084X830 |                                  |             |                        |                        |                        |
| T65      | $6500 \pm 30\%$   | 5000                 | B64290L0084X065 |                                  |             |                        |                        |                        |

N87:  $P_V$  (100 mT, 100 kHz, 100 °C) < 7.8 W/core

**R 140 × 103 × 25.0**
**B64290A0705**
**R 202 × 153 × 25.0**
**B64290A0711**

■ Without coating

**R 140 × 103 × 25.0 (mm)**
**R 5.512 × 4.055 × 0.984 (inch)**

### Dimensions

| $d_a$ (mm) | $d_i$ (mm) | Height (mm) | $d_a$ (inch) | $d_i$ (inch) | Height (inch) |          |
|------------|------------|-------------|--------------|--------------|---------------|----------|
| 140.0 ±3.0 | 103 ±2.0   | 25.0 ±1.0   | 5.512 ±0.118 | 4.055 ±0.079 | 0.984 ±0.039  | uncoated |
| 143.8 max. | 100.2 min. | 27.2 max.   | 5.661 max.   | 3.945 min.   | 1.071 max.    | coated   |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                          |                          | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|--------------------------|--------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>mm <sup>-1</sup> | $l_e$<br>mm | $A_e$<br>mm <sup>2</sup> | $V_e$<br>mm <sup>3</sup> |                        |
| K10      | 1100 ±25%         | 700                  | B64290A0705X010 | 0.82                             | 375.8       | 458.9                    | 172440                   | 860                    |
| N87      | 3400 ±25%         | 2200                 | B64290L0705X087 |                                  |             |                          |                          |                        |
| N30      | 6200 ±25%         | 4000                 | B64290L0705X830 |                                  |             |                          |                          |                        |
| T37      | 8400 ±25%         | 5500                 | B64290L0705X037 |                                  |             |                          |                          |                        |

N87:  $P_V$  (100 mT, 100 kHz, 100 °C) < 20 W/core

■ Without coating

**R 202.0 × 153 × 25.0 (mm)**
**R 7.953 × 6.024 × 0.984 (inch)**

### Dimensions

| $d_a$ (mm) | $d_i$ (mm) | Height (mm) | $d_a$ (inch) | $d_i$ (inch) | Height (inch) |                      |
|------------|------------|-------------|--------------|--------------|---------------|----------------------|
| 202.0 ±4.0 | 153.0 ±3.0 | 25.0 ±1.0   | 7.953 ±0.157 | 6.024 ±0.118 | 0.984 ±0.039  | uncoated             |
| 207.0 max. | 149.0 min. | 27.5 max.   | 8.150 max.   | 5.866 min.   | 1.083 max.    | coated <sup>1)</sup> |

### Characteristics and ordering codes

| Material | $A_L$ value<br>nH | $\mu_i$<br>(approx.) | Ordering code   | Magnetic characteristics         |             |                          |                          | Approx.<br>weight<br>g |
|----------|-------------------|----------------------|-----------------|----------------------------------|-------------|--------------------------|--------------------------|------------------------|
|          |                   |                      |                 | $\Sigma I/A$<br>mm <sup>-1</sup> | $l_e$<br>mm | $A_e$<br>mm <sup>2</sup> | $V_e$<br>mm <sup>3</sup> |                        |
| K10      | 970 ±25%          | 700                  | B64290A0711X010 | 0.90                             | 550.5       | 608.6                    | 335030                   | 1600                   |
| N30      | 5200 ±25%         | 3700                 | B64290A0711X830 |                                  |             |                          |                          |                        |

## Ferrites and accessories

### Cautions and warnings

#### Mechanical stress and mounting

Ferrite cores have to meet mechanical requirements during assembling and for a growing number of applications. Since ferrites are ceramic materials one has to be aware of the special behavior under mechanical load.

As valid for any ceramic material, ferrite cores are brittle and sensitive to any shock, fast changing or tensile load. Especially high cooling rates under ultrasonic cleaning and high static or cyclic loads can cause cracks or failure of the ferrite cores.

For detailed information see chapter *"Definitions"*, section 8.1.

#### Effects of core combination on $A_L$ value

Stresses in the core affect not only the mechanical but also the magnetic properties. It is apparent that the initial permeability is dependent on the stress state of the core. The higher the stresses are in the core, the lower is the value for the initial permeability. Thus the embedding medium should have the greatest possible elasticity.

For detailed information see chapter *"Definitions"*, section 8.2.

#### Heating up

Ferrites can run hot during operation at higher flux densities and higher frequencies.

#### NiZn-materials

The magnetic properties of NiZn-materials can change irreversible in high magnetic fields.

#### Processing notes

- The start of the winding process should be soft. Else the flanges may be destroyed.
- To strong winding forces may blast the flanges or squeeze the tube that the cores can no more be mount.
- To long soldering time at high temperature ( $>300\text{ °C}$ ) may effect coplanarity or pin arrangement.
- Not following the processing notes for soldering of the J-leg terminals may cause solderability problems at the transformer because of pollution with Sn oxyd of the tin bath or burned insulation of the wire. For detailed information see chapter *"Processing notes"*, section 8.2.
- The dimensions of the hole arrangement have fixed values and should be understood as a recommendation for drilling the printed circuit board. For dimensioning the pins, the group of holes can only be seen under certain conditions, as they fit into the given hole arrangement. To avoid problems when mounting the transformer, the manufacturing tolerances for positioning the customers' drilling process must be considered by increasing the hole diameter.

## Ferrites and accessories

### Symbols and terms

| Symbol              | Meaning                                                         | Unit                         |
|---------------------|-----------------------------------------------------------------|------------------------------|
| A                   | Cross section of coil                                           | mm <sup>2</sup>              |
| A <sub>e</sub>      | Effective magnetic cross section                                | mm <sup>2</sup>              |
| A <sub>L</sub>      | Inductance factor; $A_L = L/N^2$                                | nH                           |
| A <sub>L1</sub>     | Minimum inductance at defined high saturation ( $\cong \mu_a$ ) | nH                           |
| A <sub>min</sub>    | Minimum core cross section                                      | mm <sup>2</sup>              |
| A <sub>N</sub>      | Winding cross section                                           | mm <sup>2</sup>              |
| A <sub>R</sub>      | Resistance factor; $A_R = R_{Cu}/N^2$                           | $\mu\Omega = 10^{-6} \Omega$ |
| B                   | RMS value of magnetic flux density                              | Vs/m <sup>2</sup> , mT       |
| $\Delta B$          | Flux density deviation                                          | Vs/m <sup>2</sup> , mT       |
| $\hat{B}$           | Peak value of magnetic flux density                             | Vs/m <sup>2</sup> , mT       |
| $\Delta \hat{B}$    | Peak value of flux density deviation                            | Vs/m <sup>2</sup> , mT       |
| B <sub>DC</sub>     | DC magnetic flux density                                        | Vs/m <sup>2</sup> , mT       |
| B <sub>R</sub>      | Remanent flux density                                           | Vs/m <sup>2</sup> , mT       |
| B <sub>S</sub>      | Saturation magnetization                                        | Vs/m <sup>2</sup> , mT       |
| C <sub>0</sub>      | Winding capacitance                                             | F = As/V                     |
| CDF                 | Core distortion factor                                          | mm <sup>-4.5</sup>           |
| DF                  | Relative disaccommodation coefficient $DF = d/\mu_i$            |                              |
| d                   | Disaccommodation coefficient                                    |                              |
| E <sub>a</sub>      | Activation energy                                               | J                            |
| f                   | Frequency                                                       | s <sup>-1</sup> , Hz         |
| f <sub>cutoff</sub> | Cut-off frequency                                               | s <sup>-1</sup> , Hz         |
| f <sub>max</sub>    | Upper frequency limit                                           | s <sup>-1</sup> , Hz         |
| f <sub>min</sub>    | Lower frequency limit                                           | s <sup>-1</sup> , Hz         |
| f <sub>r</sub>      | Resonance frequency                                             | s <sup>-1</sup> , Hz         |
| f <sub>Cu</sub>     | Copper filling factor                                           |                              |
| g                   | Air gap                                                         | mm                           |
| H                   | RMS value of magnetic field strength                            | A/m                          |
| $\hat{H}$           | Peak value of magnetic field strength                           | A/m                          |
| H <sub>DC</sub>     | DC field strength                                               | A/m                          |
| H <sub>c</sub>      | Coercive field strength                                         | A/m                          |
| h                   | Hysteresis coefficient of material                              | 10 <sup>-6</sup> cm/A        |
| h/ $\mu_i^2$        | Relative hysteresis coefficient                                 | 10 <sup>-6</sup> cm/A        |
| I                   | RMS value of current                                            | A                            |
| I <sub>DC</sub>     | Direct current                                                  | A                            |
| $\hat{I}$           | Peak value of current                                           | A                            |
| J                   | Polarization                                                    | Vs/m <sup>2</sup>            |
| k                   | Boltzmann constant                                              | J/K                          |
| k <sub>3</sub>      | Third harmonic distortion                                       |                              |
| k <sub>3c</sub>     | Circuit third harmonic distortion                               |                              |
| L                   | Inductance                                                      | H = Vs/A                     |

## Ferrites and accessories

### Symbols and terms

| Symbol              | Meaning                                                             | Unit               |
|---------------------|---------------------------------------------------------------------|--------------------|
| $\Delta L/L$        | Relative inductance change                                          | H                  |
| $L_0$               | Inductance of coil without core                                     | H                  |
| $L_H$               | Main inductance                                                     | H                  |
| $L_p$               | Parallel inductance                                                 | H                  |
| $L_{rev}$           | Reversible inductance                                               | H                  |
| $L_s$               | Series inductance                                                   | H                  |
| $l_e$               | Effective magnetic path length                                      | mm                 |
| $l_N$               | Average length of turn                                              | mm                 |
| $N$                 | Number of turns                                                     |                    |
| $P_{Cu}$            | Copper (winding) losses                                             | W                  |
| $P_{trans}$         | Transferrable power                                                 | W                  |
| $P_V$               | Relative core losses                                                | mW/g               |
| PF                  | Performance factor                                                  |                    |
| $Q$                 | Quality factor ( $Q = \omega L/R_s = 1/\tan \delta_L$ )             |                    |
| $R$                 | Resistance                                                          | $\Omega$           |
| $R_{Cu}$            | Copper (winding) resistance ( $f = 0$ )                             | $\Omega$           |
| $R_h$               | Hysteresis loss resistance of a core                                | $\Omega$           |
| $\Delta R_h$        | $R_h$ change                                                        | $\Omega$           |
| $R_i$               | Internal resistance                                                 | $\Omega$           |
| $R_p$               | Parallel loss resistance of a core                                  | $\Omega$           |
| $R_s$               | Series loss resistance of a core                                    | $\Omega$           |
| $R_{th}$            | Thermal resistance                                                  | K/W                |
| $R_V$               | Effective loss resistance of a core                                 | $\Omega$           |
| $s$                 | Total air gap                                                       | mm                 |
| $T$                 | Temperature                                                         | $^{\circ}\text{C}$ |
| $\Delta T$          | Temperature difference                                              | K                  |
| $T_C$               | Curie temperature                                                   | $^{\circ}\text{C}$ |
| $t$                 | Time                                                                | s                  |
| $t_v$               | Pulse duty factor                                                   |                    |
| $\tan \delta$       | Loss factor                                                         |                    |
| $\tan \delta_L$     | Loss factor of coil                                                 |                    |
| $\tan \delta_r$     | (Residual) loss factor at $H \rightarrow 0$                         |                    |
| $\tan \delta_e$     | Relative loss factor                                                |                    |
| $\tan \delta_h$     | Hysteresis loss factor                                              |                    |
| $\tan \delta/\mu_i$ | Relative loss factor of material at $H \rightarrow 0$               |                    |
| $U$                 | RMS value of voltage                                                | V                  |
| $\hat{U}$           | Peak value of voltage                                               | V                  |
| $V_e$               | Effective magnetic volume                                           | mm <sup>3</sup>    |
| $Z$                 | Complex impedance                                                   | $\Omega$           |
| $Z_n$               | Normalized impedance $ Z _n =  Z /N^2 \times \varepsilon (l_e/A_e)$ | $\Omega/\text{mm}$ |

## Ferrites and accessories

### Symbols and terms

| Symbol       | Meaning                                                                      | Unit                              |
|--------------|------------------------------------------------------------------------------|-----------------------------------|
| $\alpha$     | Temperature coefficient (TK)                                                 | 1/K                               |
| $\alpha_F$   | Relative temperature coefficient of material                                 | 1/K                               |
| $\alpha_e$   | Temperature coefficient of effective permeability                            | 1/K                               |
| $\epsilon_r$ | Relative permittivity                                                        |                                   |
| $\Phi$       | Magnetic flux                                                                | Vs                                |
| $\eta$       | Efficiency of a transformer                                                  |                                   |
| $\eta_B$     | Hysteresis material constant                                                 | mT <sup>-1</sup>                  |
| $\eta_i$     | Hysteresis core constant                                                     | A <sup>-1</sup> H <sup>-1/2</sup> |
| $\lambda_s$  | Magnetostriction at saturation magnetization                                 |                                   |
| $\mu$        | Relative complex permeability                                                |                                   |
| $\mu_0$      | Magnetic field constant                                                      | Vs/Am                             |
| $\mu_a$      | Relative amplitude permeability                                              |                                   |
| $\mu_{app}$  | Relative apparent permeability                                               |                                   |
| $\mu_e$      | Relative effective permeability                                              |                                   |
| $\mu_i$      | Relative initial permeability                                                |                                   |
| $\mu_p'$     | Relative real (inductive) component of $\bar{\mu}$ (for parallel components) |                                   |
| $\mu_p''$    | Relative imaginary (loss) component of $\bar{\mu}$ (for parallel components) |                                   |
| $\mu_r$      | Relative permeability                                                        |                                   |
| $\mu_{rev}$  | Relative reversible permeability                                             |                                   |
| $\mu_s'$     | Relative real (inductive) component of $\bar{\mu}$ (for series components)   |                                   |
| $\mu_s''$    | Relative imaginary (loss) component of $\bar{\mu}$ (for series components)   |                                   |
| $\mu_{tot}$  | Relative total permeability<br>derived from the static magnetization curve   |                                   |
| $\rho$       | Resistivity                                                                  | $\Omega m^{-1}$                   |
| $\Sigma l/A$ | Magnetic form factor                                                         | mm <sup>-1</sup>                  |
| $\tau_{Cu}$  | DC time constant $\tau_{Cu} = L/R_{Cu} = A_L/A_R$                            | s                                 |
| $\omega$     | Angular frequency; $\omega = 2 \pi f$                                        | s <sup>-1</sup>                   |

All dimensions are given in mm.

**SMD** Surface-mount device

## Important notes

The following applies to all products named in this publication:

1. Some parts of this publication contain **statements about the suitability of our products for certain areas of application**. These statements are based on our knowledge of typical requirements that are often placed on our products in the areas of application concerned. We nevertheless expressly point out **that such statements cannot be regarded as binding statements about the suitability of our products for a particular customer application**. As a rule, EPCOS is either unfamiliar with individual customer applications or less familiar with them than the customers themselves. For these reasons, it is always ultimately incumbent on the customer to check and decide whether an EPCOS product with the properties described in the product specification is suitable for use in a particular customer application.
2. We also point out that **in individual cases, a malfunction of electronic components or failure before the end of their usual service life cannot be completely ruled out in the current state of the art, even if they are operated as specified**. In customer applications requiring a very high level of operational safety and especially in customer applications in which the malfunction or failure of an electronic component could endanger human life or health (e.g. in accident prevention or lifesaving systems), it must therefore be ensured by means of suitable design of the customer application or other action taken by the customer (e.g. installation of protective circuitry or redundancy) that no injury or damage is sustained by third parties in the event of malfunction or failure of an electronic component.
3. **The warnings, cautions and product-specific notes must be observed.**
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