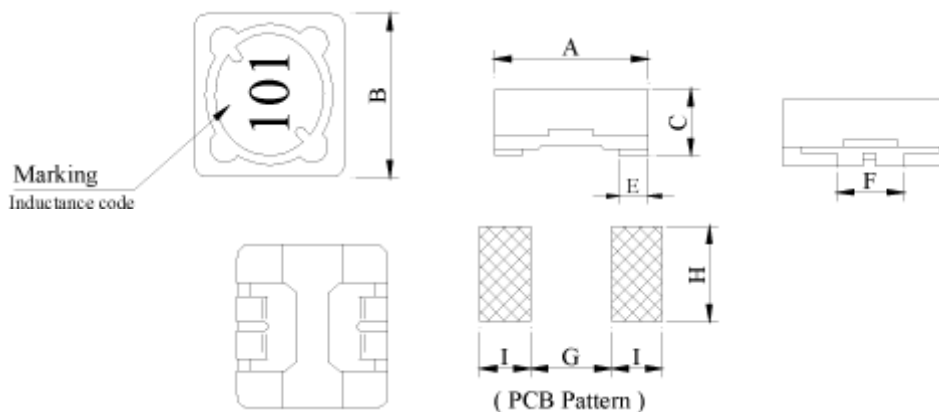


1. Configuration & Dimensions



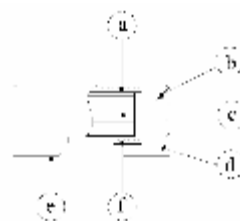
| Series | Dimensions [mm] | | | | | | | |
|--------|-----------------|----------|---------|---------|---------|---------|---------|---------|
| | A | B | C | E | F | G(ref.) | H(ref.) | I(ref.) |
| SHA | 12.7±0.3 | 12.7±0.3 | 5.0±0.5 | 2.3±0.2 | 5.0±0.2 | 6.0 | 7.0 | 4.0 |
| SHB | 12.7±0.3 | 12.7±0.3 | 6.0±0.5 | 2.3±0.2 | 5.0±0.2 | 6.0 | 7.0 | 4.0 |
| SHC | 12.7±0.3 | 12.7±0.3 | 8.0±0.5 | 2.3±0.2 | 5.0±0.2 | 6.0 | 7.0 | 4.0 |
| PS1260 | 12.5±0.3 | 12.5±0.3 | 6.0±0.5 | - | 5.0±0.3 | 6.8 | 5.4 | 2.9 |

2. Schematic Diagram



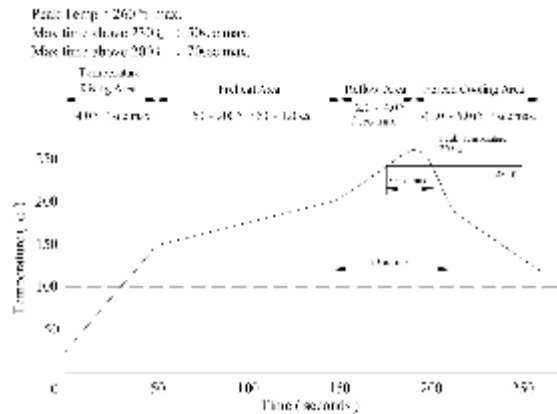
3. Materials

- a.- Core : Ferrite DR core
- b.- Core : Ferrite RI core
- c.- Wire : Enamelled copper wire (class F)
- d.- Base : LCP
- e.- Terminal : Cu / Ni / Sn
- f.- Adhesive : Epoxy resin
- g.- Remark : Lead content 200ppm max. include ferrite



4. General Specification

- a.- Temp. rise $\left\{ \begin{array}{l} 40^{\circ}\text{C max. (SHA,SHB,SHC)} \\ 40^{\circ}\text{C typ. (PS1260)} \end{array} \right.$
- b.- Rated current : Base on temp. rise & $\Delta L/L0A = 10\%$ max.
- c.- Storage temp. : $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$
- d.- Operating temp. $\left\{ \begin{array}{l} -40^{\circ}\text{C} \sim +105^{\circ}\text{C (SHA,SHB,SHC)} \\ -40^{\circ}\text{C} \sim +125^{\circ}\text{C (PS1260)} \end{array} \right.$
- e.- Resistance to solder heat : 260°C . 10 secs



5. Electrical Characteristics

SHA (2.5 μH – 820 μH)

| DWG No. | Inductance (mH) | Test Freq. L (KHz) | RDC (m Ω) max. | IDC (A) max. |
|------------|-----------------|--------------------|------------------------|--------------|
| SHA – 2R5M | 2.50 \pm 20% | 1 | 24.0 | 5.00 |
| SHA – 5R0M | 5.00 \pm 20% | 1 | 35.0 | 4.00 |
| SHA – 7R5M | 7.50 \pm 20% | 1 | 40.0 | 3.50 |
| SHA – 100M | 10.0 \pm 20% | 1 | 54.0 | 3.00 |
| SHA – 120M | 12.0 \pm 20% | 1 | 65.0 | 2.80 |
| SHA – 150M | 15.0 \pm 20% | 1 | 70.0 | 2.70 |
| SHA – 180M | 18.0 \pm 20% | 1 | 82.0 | 2.60 |
| SHA – 220M | 22.0 \pm 20% | 1 | 95.0 | 2.40 |
| SHA – 250M | 25.0 \pm 20% | 1 | 120.0 | 2.00 |
| SHA – 330M | 33.0 \pm 20% | 1 | 145.0 | 1.80 |
| SHA – 390M | 39.0 \pm 20% | 1 | 160.0 | 1.65 |
| SHA – 500L | 50.0 \pm 15% | 1 | 200.0 | 1.50 |
| SHA – 560L | 56.0 \pm 15% | 1 | 240.0 | 1.40 |
| SHA – 680L | 68.0 \pm 15% | 1 | 280.0 | 1.30 |
| SHA – 750L | 75.0 \pm 15% | 1 | 330.0 | 1.20 |
| SHA – 101K | 100.0 \pm 10% | 1 | 400.0 | 1.00 |
| SHA – 121K | 120.0 \pm 10% | 1 | 500.0 | 0.90 |
| SHA – 151K | 150.0 \pm 10% | 1 | 580.0 | 0.80 |
| SHA – 181K | 180.0 \pm 10% | 1 | 750.0 | 0.70 |
| SHA – 221K | 220.0 \pm 10% | 1 | 840.0 | 0.65 |
| SHA – 271K | 270.0 \pm 10% | 1 | 1000.0 | 0.60 |

SHA (2.5µH – 820µH)

| | | | | |
|------------|-----------|---|--------|------|
| SHA – 331K | 330.0±10% | 1 | 1340.0 | 0.54 |
| SHA – 391K | 390.0±10% | 1 | 1500.0 | 0.50 |
| SHA – 471K | 470.0±10% | 1 | 1980.0 | 0.45 |
| SHA – 561K | 560.0±10% | 1 | 2200.0 | 0.40 |
| SHA – 681K | 680.0±10% | 1 | 2400.0 | 0.35 |
| SHA – 821K | 820.0±10% | 1 | 3000.0 | 0.30 |

SHB (2.5µH – 1500µH)

| DWG No. | Inductance (mH) | Test Freq. L (KHz) | RDC (mΩ) max. | IDC (A) max. |
|------------|-----------------|--------------------|---------------|--------------|
| SHB – 2R5M | 2.50±20% | 1 | 16.0 | 6.20 |
| SHB – 5R0M | 5.00±20% | 1 | 22.0 | 4.70 |
| SHB – 7R5M | 7.50±20% | 1 | 25.0 | 3.80 |
| SHB – 100M | 10.0±20% | 1 | 35.0 | 3.30 |
| SHB – 120M | 12.0±20% | 1 | 38.0 | 3.00 |
| SHB – 150M | 15.0±20% | 1 | 42.0 | 2.80 |
| SHB – 180M | 18.0±20% | 1 | 50.0 | 2.50 |
| SHB – 220M | 22.0±20% | 1 | 62.0 | 2.30 |
| SHB – 270M | 27.0±20% | 1 | 68.0 | 2.00 |
| SHB – 330L | 33.0±15% | 1 | 90.0 | 1.90 |
| SHB – 390L | 39.0±15% | 1 | 100.0 | 1.75 |
| SHB – 470L | 47.0±15% | 1 | 130.0 | 1.60 |
| SHB – 560L | 56.0±15% | 1 | 155.0 | 1.45 |
| SHB – 680L | 68.0±15% | 1 | 170.0 | 1.30 |
| SHB – 820L | 82.0±15% | 1 | 185.0 | 1.20 |
| SHB – 101L | 100.0±15% | 1 | 220.0 | 1.10 |
| SHB – 121L | 120.0±15% | 1 | 260.0 | 1.00 |
| SHB – 151K | 150.0±10% | 1 | 320.0 | 0.90 |
| SHB – 181K | 180.0±10% | 1 | 380.0 | 0.80 |
| SHB – 221K | 220.0±10% | 1 | 460.0 | 0.70 |
| SHB – 271K | 270.0±10% | 1 | 520.0 | 0.65 |
| SHB – 331K | 330.0±10% | 1 | 660.0 | 0.60 |
| SHB – 391K | 390.0±10% | 1 | 870.0 | 0.55 |
| SHB – 471K | 470.0±10% | 1 | 970.0 | 0.50 |
| SHB – 561K | 560.0±10% | 1 | 1320.0 | 0.45 |
| SHB – 681K | 680.0±10% | 1 | 1500.0 | 0.40 |
| SHB – 821K | 820.0±10% | 1 | 1700.0 | 0.35 |
| SHB – 102K | 1000.0±10% | 1 | 2300.0 | 0.30 |
| SHB – 122K | 1200.0±10% | 1 | 2650.0 | 0.25 |
| SHB – 152K | 1500.0±10% | 1 | 3500.0 | 0.20 |

SHC (2.5µH – 1500µH)

| DWG No. | Inductance (mH) | Test Freq. L (KHz) | RDC (mΩ) max. | IDC (A) max. |
|------------|-----------------|--------------------|---------------|--------------|
| SHC – 2R5M | 2.50±20% | 1 | 11.4 | 7.80 |
| SHC – 4R5M | 4.50±20% | 1 | 14.0 | 6.80 |
| SHC – 6R5M | 6.50±20% | 1 | 18.0 | 6.50 |
| SHC – 100M | 10.0±20% | 1 | 21.0 | 5.40 |
| SHC – 120M | 12.0±20% | 1 | 25.0 | 4.90 |
| SHC – 150M | 15.0±20% | 1 | 36.0 | 4.50 |
| SHC – 180M | 18.0±20% | 1 | 40.0 | 3.90 |
| SHC – 220M | 22.0±20% | 1 | 43.0 | 3.60 |
| SHC – 270M | 27.0±20% | 1 | 48.0 | 3.40 |
| SHC – 330L | 33.0±15% | 1 | 62.0 | 3.00 |
| SHC – 390L | 39.0±15% | 1 | 76.0 | 2.70 |
| SHC – 470L | 47.0±15% | 1 | 85.0 | 2.50 |
| SHC – 560L | 56.0±15% | 1 | 110.0 | 2.30 |
| SHC – 680L | 68.0±15% | 1 | 135.0 | 2.10 |
| SHC – 820L | 82.0±15% | 1 | 150.0 | 1.90 |
| SHC – 101L | 100.0±15% | 1 | 170.0 | 1.70 |
| SHC – 121L | 120.0±15% | 1 | 190.0 | 1.50 |
| SHC – 151L | 150.0±15% | 1 | 240.0 | 1.40 |
| SHC – 181L | 180.0±15% | 1 | 270.0 | 1.30 |
| SHC – 221K | 220.0±10% | 1 | 380.0 | 1.10 |
| SHC – 271K | 270.0±10% | 1 | 400.0 | 1.00 |
| SHC – 331K | 330.0±10% | 1 | 650.0 | 0.90 |
| SHC – 391K | 390.0±10% | 1 | 670.0 | 0.85 |
| SHC – 471K | 470.0±10% | 1 | 850.0 | 0.80 |
| SHC – 561K | 560.0±10% | 1 | 900.0 | 0.70 |
| SHC – 681K | 680.0±10% | 1 | 1000.0 | 0.65 |
| SHC – 821K | 820.0±10% | 1 | 1150.0 | 0.60 |
| SHC – 102K | 1000.0±10% | 1 | 1650.0 | 0.55 |
| SHC – 122K | 1200.0±10% | 1 | 2000.0 | 0.40 |
| SHC – 152K | 1500.0±10% | 1 | 2350.0 | 0.36 |

PS1260 (1.2 μ H - 100 μ H)

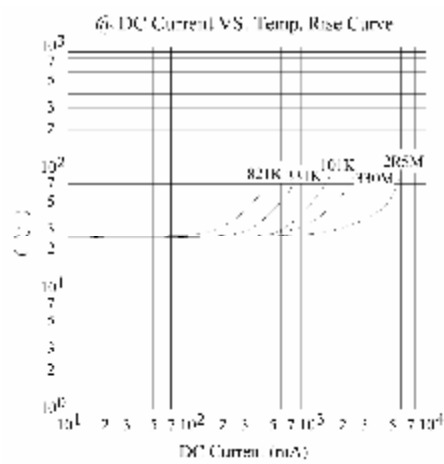
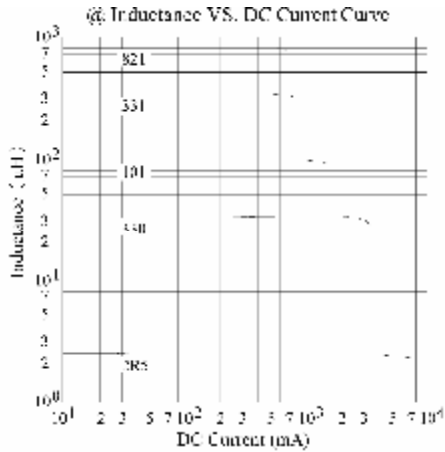
| DWG No. | Inductance (mH) | Q ref. | Test Freq. | | SRF (MHz) typ. | RDC (mW) max. | I _{rms} (A) $\Delta T=40^{\circ}C$ typ. | I _{sat} (A) $\Delta L/L0A=25\%$ typ. | |
|---------------|-----------------|--------|-----------------------------|---------------------------|----------------|---------------|--|---|---------|
| | | | L (KHz) | | | | | | Q (MHz) |
| | | | 1R2N ~ 7R6N (0.1V) | 100M ~ 101M (1V) | | | | | |
| PS1260 - 1R2N | 1.20 \pm 30% | 18 | 100 | 1 | 7.96 | 91.10 | 8.0 | 9.20 | 9.80 |
| PS1260 - 2R4N | 2.40 \pm 30% | 18 | 100 | 1 | 7.96 | 63.80 | 11.5 | 7.80 | 8.00 |
| PS1260 - 3R5N | 3.50 \pm 30% | 22 | 100 | 1 | 7.96 | 37.60 | 13.0 | 7.50 | 7.60 |
| PS1260 - 4R7N | 4.70 \pm 30% | 19 | 100 | 1 | 7.96 | 36.70 | 15.5 | 6.80 | 7.00 |
| PS1260 - 6R1N | 6.10 \pm 30% | 21 | 100 | 1 | 7.96 | 29.80 | 17.0 | 6.60 | 6.80 |
| PS1260 - 7R6N | 7.60 \pm 30% | 16 | 100 | 1 | 7.96 | 27.90 | 19.0 | 6.00 | 6.20 |
| PS1260 - 100M | 10.0 \pm 20% | 32 | 100 | 1 | 2.52 | 21.00 | 20.0 | 5.50 | 5.50 |
| PS1260 - 120M | 12.0 \pm 20% | 27 | 100 | 1 | 2.52 | 19.40 | 23.0 | 5.20 | 5.00 |
| PS1260 - 150M | 15.0 \pm 20% | 25 | 100 | 1 | 2.52 | 17.60 | 27.0 | 5.00 | 4.60 |
| PS1260 - 180M | 18.0 \pm 20% | 28 | 100 | 1 | 2.52 | 15.50 | 36.0 | 4.20 | 3.90 |
| PS1260 - 220M | 22.0 \pm 20% | 29 | 100 | 1 | 2.52 | 13.40 | 43.0 | 4.00 | 3.70 |
| PS1260 - 270M | 27.0 \pm 20% | 26 | 100 | 1 | 2.52 | 12.70 | 45.0 | 3.60 | 3.30 |
| PS1260 - 330M | 33.0 \pm 20% | 27 | 100 | 1 | 2.52 | 9.97 | 60.0 | 3.00 | 2.80 |
| PS1260 - 390M | 39.0 \pm 20% | 22 | 100 | 1 | 2.52 | 10.40 | 70.0 | 2.80 | 2.70 |
| PS1260 - 470M | 47.0 \pm 20% | 22 | 100 | 1 | 2.52 | 7.63 | 86.0 | 2.60 | 2.50 |
| PS1260 - 560M | 56.0 \pm 20% | 24 | 100 | 1 | 2.52 | 7.92 | 100.0 | 2.30 | 2.20 |
| PS1260 - 680M | 68.0 \pm 20% | 22 | 100 | 1 | 2.52 | 7.43 | 110.0 | 2.10 | 2.10 |
| PS1260 - 820M | 82.0 \pm 20% | 25 | 100 | 1 | 2.52 | 6.85 | 145.0 | 1.95 | 1.90 |
| PS1260 - 101M | 100.0 \pm 20% | 26 | 100 | 1 | 0.796 | 6.07 | 180.0 | 1.70 | 1.70 |

6. Curve

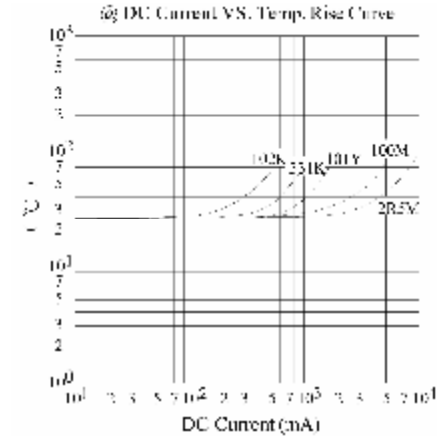
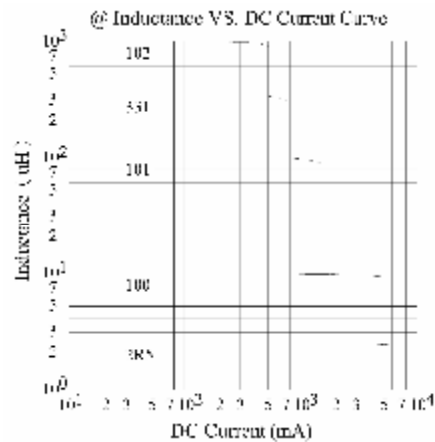
Inductance VS. DC Current Curve

DC Current VS. Temp. Rise Curve

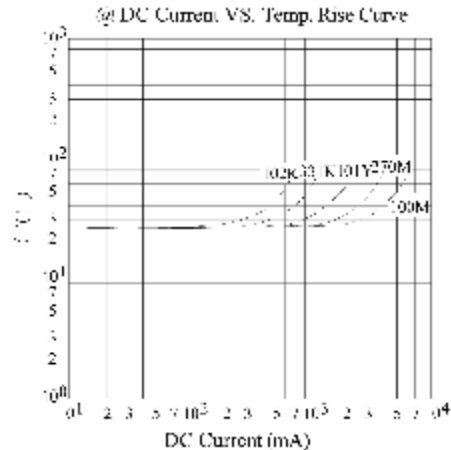
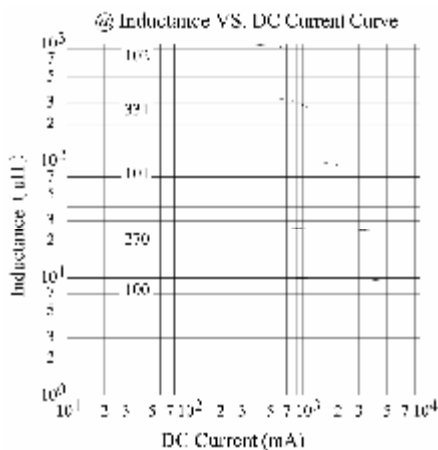
SHA



SHB



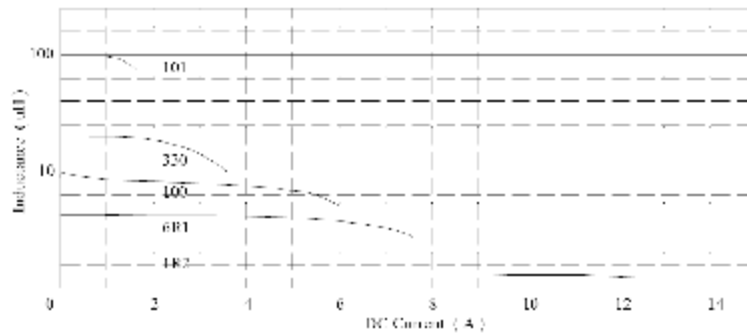
SHC



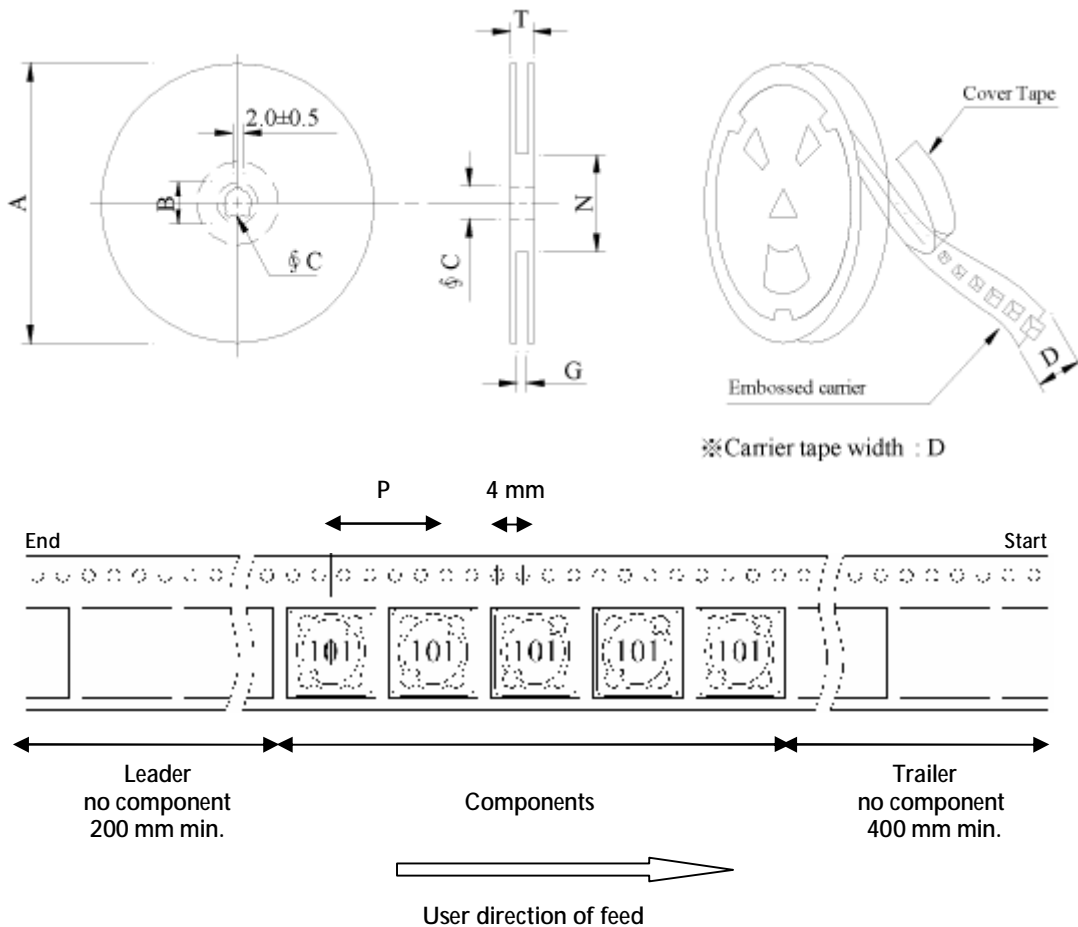
C/Severo Ochoa 33 - Parque Tecnológico de Andalucía. 29590 Campanillas .Málaga (Spain) Phone +34 951 231 320 Fax +34 951 231 321
E-mail: mar.villarrubia@grupopremo.com Web <http://www.grupopremo.com>

Inductance VS. DC Current Curve

PS1260



7. Packaging Information

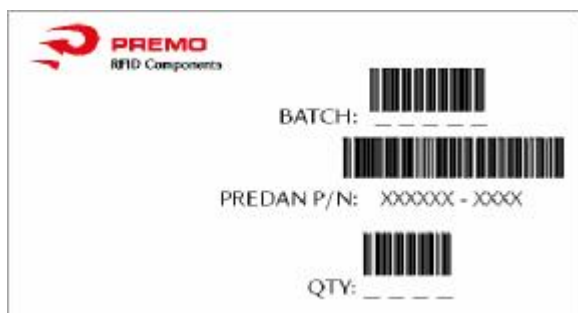


(SHA, SHB, PS1260 à P = 16mm) (SHC à P = 20mm)

| Style | Dimensions [mm] | | | | | | |
|---------|-----------------|--------|----|----|------------------|-----------------|------|
| | A | B | C | D | G | N | T |
| 13 - 24 | 330 | 21±0.8 | 13 | 24 | 26 ⁺⁰ | 50 ⁰ | 30.4 |

| Series | Inner : Reel | | | Outer : Carton | | |
|--------|--------------|----------|---------|----------------|----------|--------------|
| | Q'TY(pcs) | G.W.(gw) | Style | Q'TY(pcs) | G.W.(Kg) | Size(cm) |
| SHA | 600 | 1,900 | 13 - 24 | 2,400 | 9.8 | 40 x 40 x 24 |
| SHB | 600 | 2,200 | 13 - 24 | 2,400 | 11.0 | 40 x 40 x 24 |
| SHC | 400 | 2,100 | 13 - 24 | 1,600 | 10.6 | 40 x 40 x 24 |
| PS1260 | 600 | 2,200 | 13 - 24 | 2,400 | 11.0 | 40 x 40 x 24 |

8. Labelling



9. Reliability Test

| Test item | Specification | Test condition |
|----------------------------------|--|--|
| Solderability | More than 90% of the terminal electrode shall be covered with fresh solder | Preheat : 150±25% for 60 seconds Solder : Sn96.5 / Ag3 / Cu0.5 or equivalent Solder temp. : 235±5°C Flux : Rosin Dip time : 4±1 seconds |
| Thermal shock test (Temp. cycle) | Inductance shall not change more than ±20% | $\frac{\text{Room temp.}}{15 \text{ minutes}} \longrightarrow \frac{-25 \pm 2^\circ\text{C}}{30 \text{ minutes}}$ $\frac{\text{Room temp.}}{15 \text{ minutes}} \longrightarrow \frac{85 \pm 2^\circ\text{C}}{30 \text{ minutes}}$ Total : 50 cycles |
| Humidity Resistance test | | Temperature : 40±2°C Humidity : 90 ~ 95% Applied current : Per specifications Time : 500 hours |
| High temp. Resistance test | | Temperature : 105±2°C Applied current : Per specifications Time : 500 hours |

10. Edition Control

| Edition | Date | Change description | Made by |
|-----------------|----------|----------------------|------------|
| 1 st | 31/08/06 | Update Specification | Pablo Pozo |