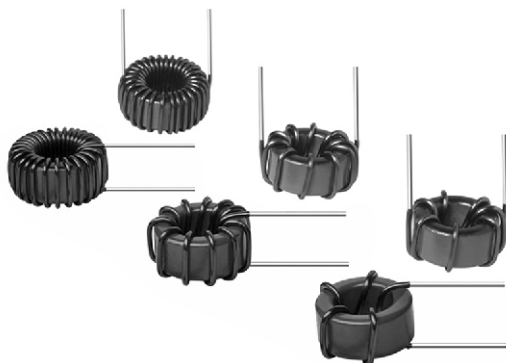


# Toroid, High Current, High Temperature, Radial Leaded



## FEATURES

- Printed circuit mounting
- Toroid design reduces EMI
- Vertical or horizontal mounting to optimize PCB layout
- High temperature rating of 200 °C - no aging
- Material categorization: For definitions please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)


**RoHS**  
COMPLIANT

## APPLICATIONS

- Switching power supplies
- EMI/RFI filtering
- Output chokes

## STANDARD ELECTRICAL SPECIFICATIONS in inches [millimeters]

| IND. L <sub>0</sub><br>(μH) | TOLERANCE<br>(%) | DCR<br>(VERTICAL MOUNT) |             | DCR<br>(HORIZONTAL MOUNT) |             | RATED<br>CURRENT<br>VERTICAL<br>MOUNT<br>(A) <sup>(1)</sup> | RATED<br>CURRENT<br>HORIZONTAL<br>MOUNT<br>(A) <sup>(1)</sup> | SATURATION<br>CURRENT<br>(A) <sup>(2)</sup> | LEAD<br>DIAMETER<br>D |
|-----------------------------|------------------|-------------------------|-------------|---------------------------|-------------|-------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------|-----------------------|
|                             |                  | TYP.<br>(Ω)             | MAX.<br>(Ω) | TYP.<br>(Ω)               | MAX.<br>(Ω) |                                                             |                                                               |                                             |                       |
| 0.39                        | 20               | 0.0014                  | 0.0016      | 0.0018                    | 0.002       | 32.0                                                        | 28.0                                                          | 23                                          | 0.053 [1.346]         |
| 1.2                         | 20               | 0.002                   | 0.0023      | 0.0025                    | 0.0028      | 25.5                                                        | 22.5                                                          | 12.5                                        | 0.053 [1.346]         |
| 1.5                         | 20               | 0.0023                  | 0.0026      | 0.0028                    | 0.003       | 23.25                                                       | 21.0                                                          | 10.5                                        | 0.053 [1.346]         |
| 4.7                         | 20               | 0.0064                  | 0.0072      | 0.0072                    | 0.008       | 11.9                                                        | 11.25                                                         | 5.9                                         | 0.042 [1.067]         |
| 10                          | 20               | 0.0132                  | 0.0145      | 0.015                     | 0.0164      | 7.25                                                        | 7.0                                                           | 4.2                                         | 0.034 [0.864]         |
| 15                          | 20               | 0.021                   | 0.023       | 0.022                     | 0.024       | 5.6                                                         | 5.5                                                           | 3.4                                         | 0.031 [0.787]         |
| 22                          | 20               | 0.024                   | 0.027       | 0.026                     | 0.029       | 5.2                                                         | 5.0                                                           | 2.5                                         | 0.031 [0.787]         |
| 39                          | 20               | 0.048                   | 0.050       | 0.050                     | 0.055       | 3.3                                                         | 3.3                                                           | 1.9                                         | 0.025 [0.635]         |
| 68                          | 20               | 0.080                   | 0.086       | 0.082                     | 0.090       | 2.5                                                         | 2.5                                                           | 1.4                                         | 0.022 [0.559]         |
| 100                         | 20               | 0.099                   | 0.108       | 0.106                     | 0.118       | 2.25                                                        | 2.25                                                          | 1.15                                        | 0.022 [0.559]         |

## Notes

- Operating temperature (ambient + ΔT): - 55 °C to + 200 °C, inductance tested at 0.25 V<sub>RMS</sub>, 1 kHz, DCR tested at 25 °C ± 5 °C, all material rated at 200 °C
- (1) DC current that will cause an approx. ΔT of 40 °C
- (2) DC current that will cause L<sub>0</sub> to drop approx. 20 %

## DIMENSIONS in inches [millimeters]

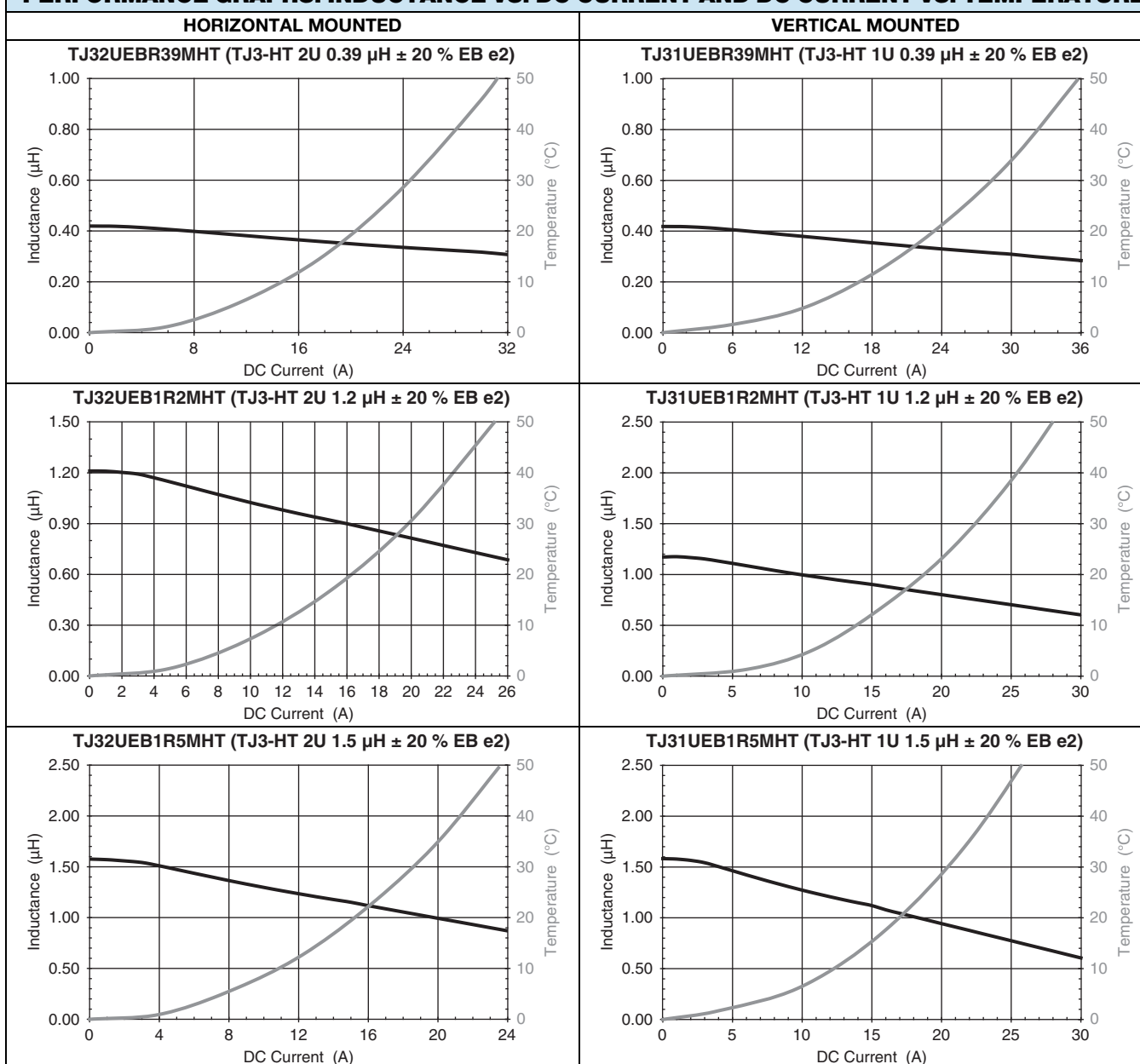
|                                                               |                                                                 |
|---------------------------------------------------------------|-----------------------------------------------------------------|
| <p><b>VERTICAL MOUNT</b><br/>(Mounting/Coating Code - 1U)</p> | <p><b>HORIZONTAL MOUNT</b><br/>(Mounting/Coating Code - 2U)</p> |
|---------------------------------------------------------------|-----------------------------------------------------------------|

**ORDERING INFORMATION**

| TJ3-HT | 1U                    | 10 $\mu$ H       | $\pm 20\%$           | EB           | e2                            |
|--------|-----------------------|------------------|----------------------|--------------|-------------------------------|
| MODEL  | MOUNTING/COATING CODE | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC LEAD (Pb)-FREE STANDARD |

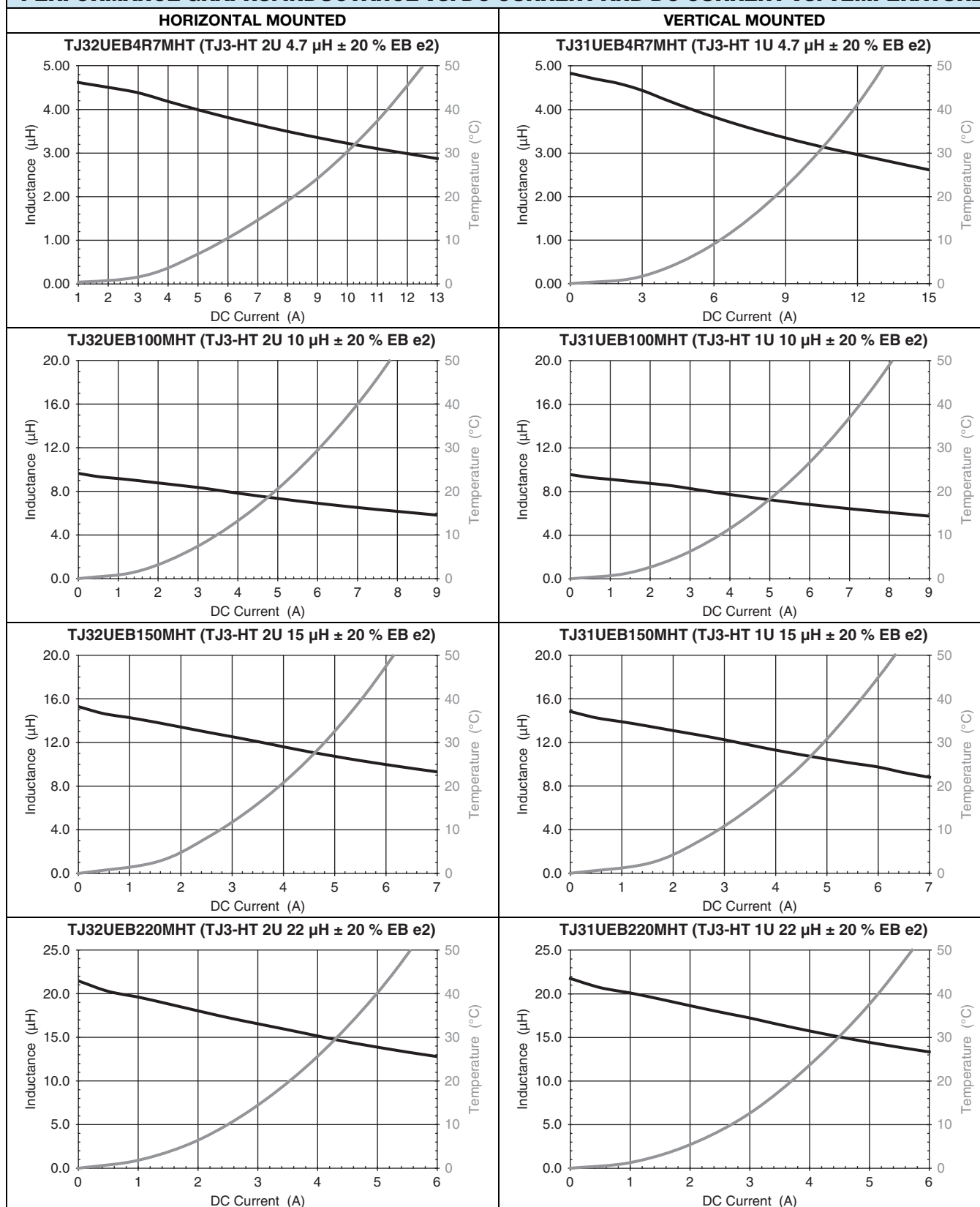
**GLOBAL PART NUMBER**

|          |          |          |                       |          |              |          |                  |          |          |                      |          |          |
|----------|----------|----------|-----------------------|----------|--------------|----------|------------------|----------|----------|----------------------|----------|----------|
| <b>T</b> | <b>J</b> | <b>3</b> | <b>1</b>              | <b>U</b> | <b>E</b>     | <b>B</b> | <b>1</b>         | <b>0</b> | <b>0</b> | <b>M</b>             | <b>H</b> | <b>T</b> |
| MODEL    |          |          | MOUNTING/COATING CODE |          | PACKAGE CODE |          | INDUCTANCE VALUE |          |          | INDUCTANCE TOLERANCE | SERIES   |          |

**PERFORMANCE GRAPHS: INDUCTANCE VS. DC CURRENT AND DC CURRENT VS. TEMPERATURE**

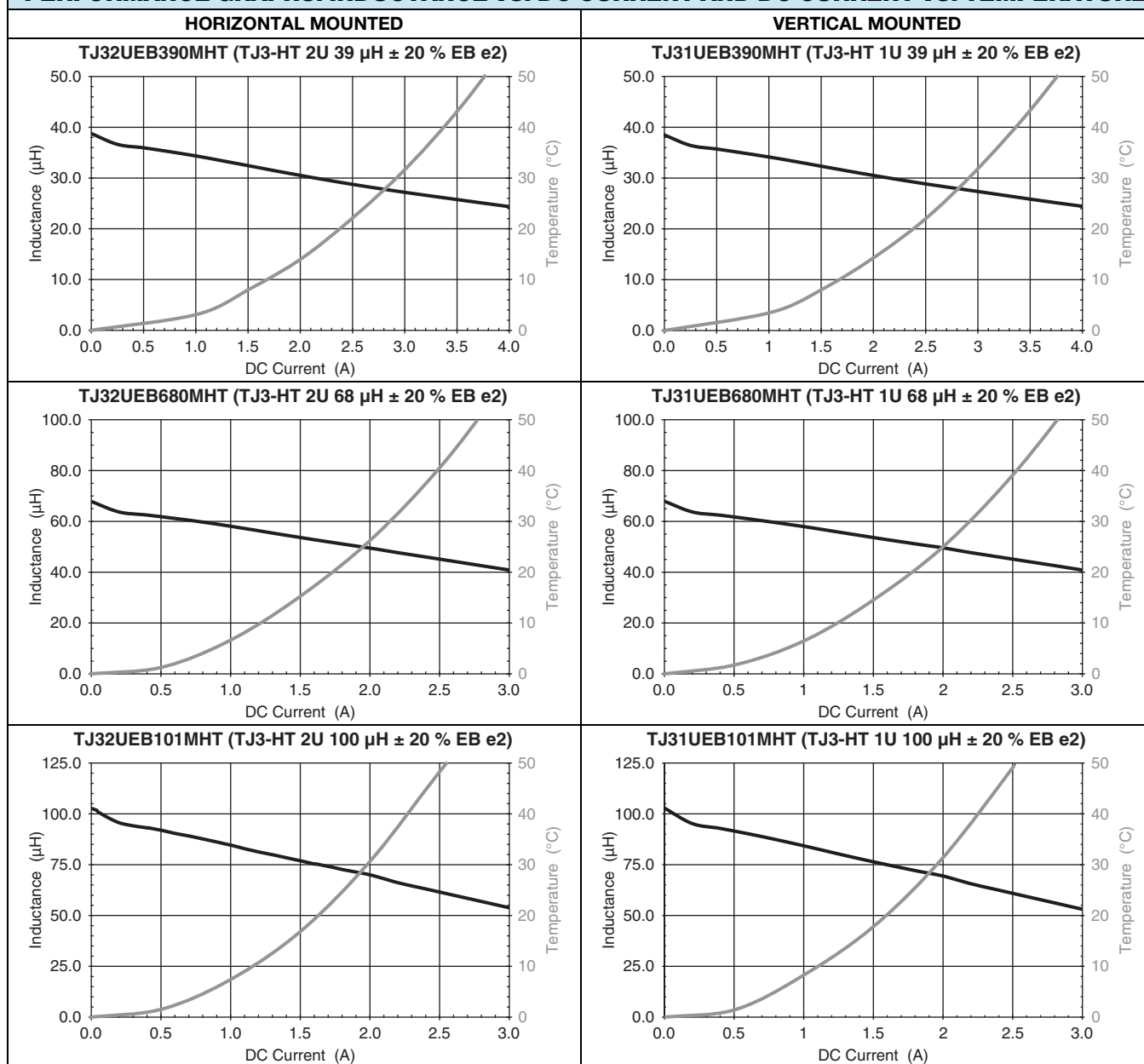


PERFORMANCE GRAPHS: INDUCTANCE VS. DC CURRENT AND DC CURRENT VS. TEMPERATURE





PERFORMANCE GRAPHS: INDUCTANCE VS. DC CURRENT AND DC CURRENT VS. TEMPERATURE





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