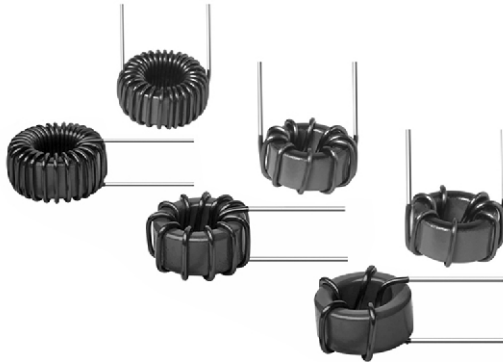


# Toroid, High Current, High Temperature, Radial Led



## 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 %

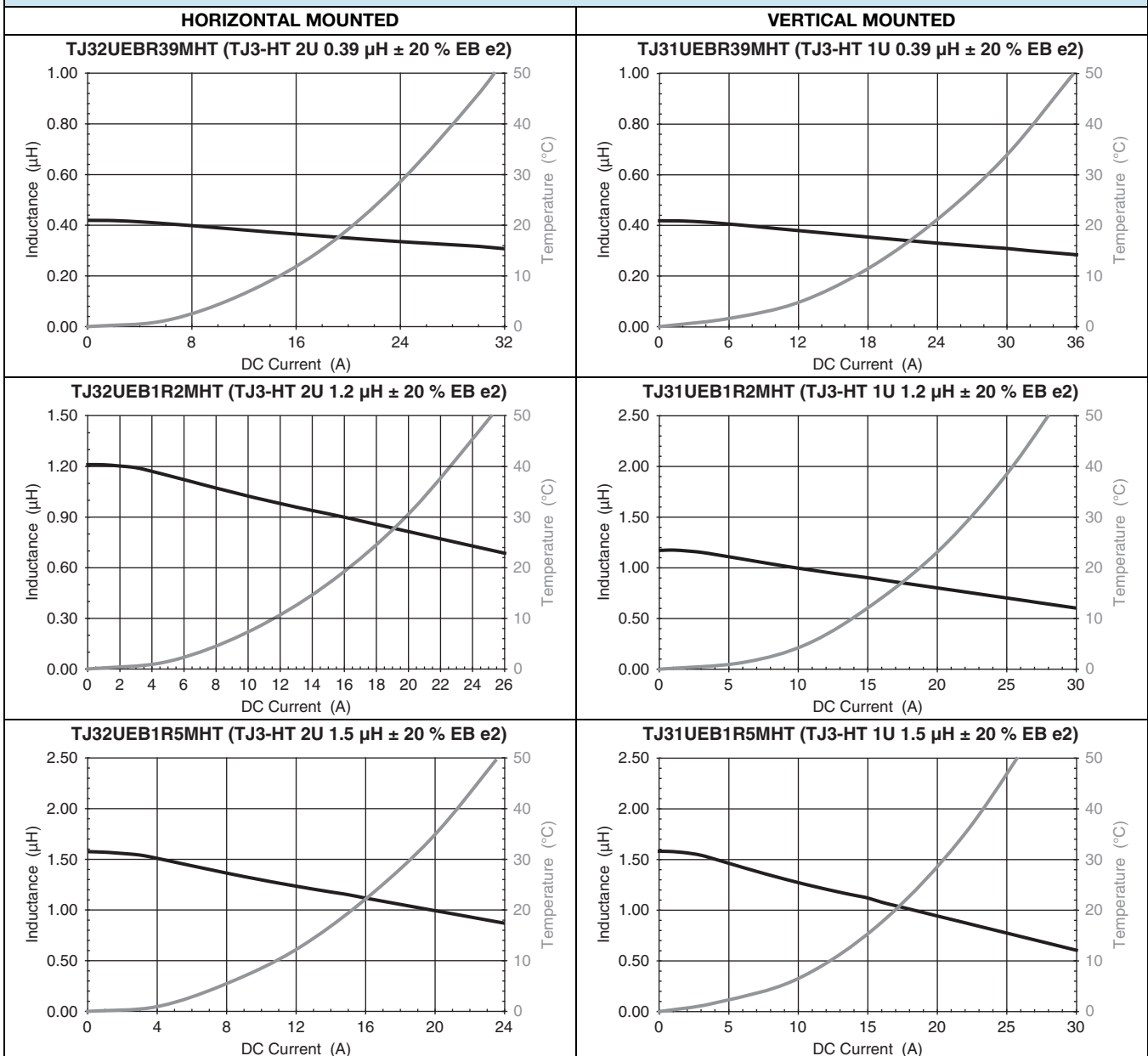
| DIMENSIONS in inches [millimeters]  |   |
|---|---|
| <p>0.66 [16.76] Max.</p> <p>0.36 [9.144] Max.</p> <p>LEADS TINNED TO WITHIN 0.062 [1.575] MAX. OF COIL</p> <p>0.50 [12.70] Min.</p> <p>TINNED LEADS</p> <p>D</p> <p>0.28 [7.112] Ref.</p> <p><b>VERTICAL MOUNT</b><br/>(Mounting/Coating Code - 1U)</p> | <p>0.66 [16.76] Max.</p> <p>0.36 [9.144] Max.</p> <p>0.60 [15.24] Ref.</p> <p>D</p> <p>0.50 [12.70] Min.</p> <p>TINNED LEADS</p> <p>LEADS TINNED TO WITHIN 0.062 [1.575] MAX. OF COIL</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 |   |   |                       |   |              |   |                  |   |   |                      |        |   |
|--------------------|---|---|-----------------------|---|--------------|---|------------------|---|---|----------------------|--------|---|
| T                  | J | 3 | 1                     | U | E            | B | 1                | 0 | 0 | M                    | H      | T |
| MODEL              |   |   | MOUNTING/COATING CODE |   | PACKAGE CODE |   | INDUCTANCE VALUE |   |   | INDUCTANCE TOLERANCE | SERIES |   |

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





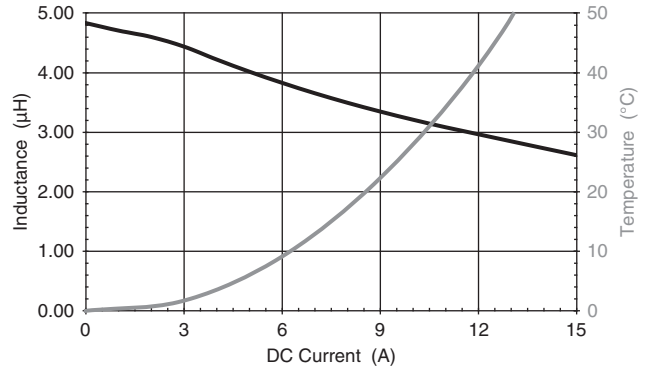
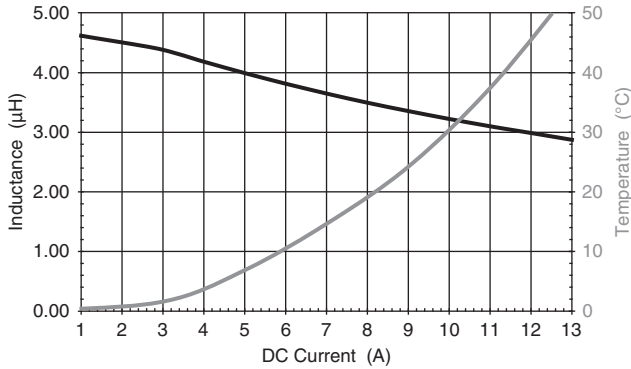
PERFORMANCE GRAPHS: INDUCTANCE VS. DC CURRENT AND DC CURRENT VS. TEMPERATURE

HORIZONTAL MOUNTED

VERTICAL MOUNTED

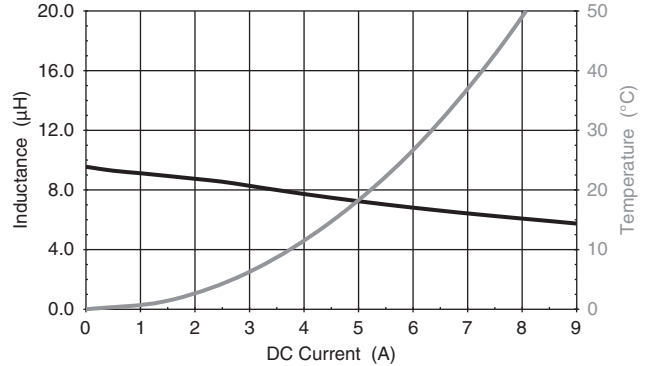
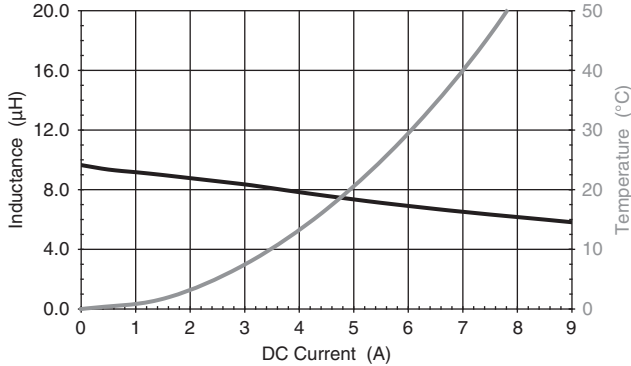
TJ32UEB4R7MHT (TJ3-HT 2U 4.7 μH ± 20 % EB e2)

TJ31UEB4R7MHT (TJ3-HT 1U 4.7 μH ± 20 % EB e2)



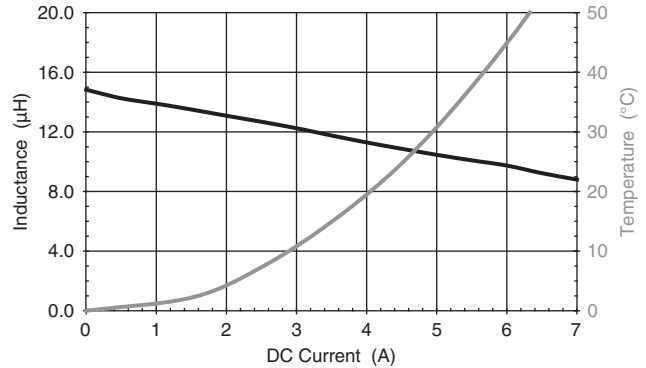
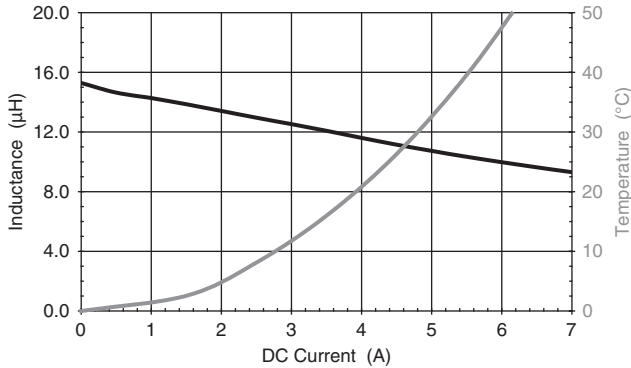
TJ32UEB100MHT (TJ3-HT 2U 10 μH ± 20 % EB e2)

TJ31UEB100MHT (TJ3-HT 1U 10 μH ± 20 % EB e2)



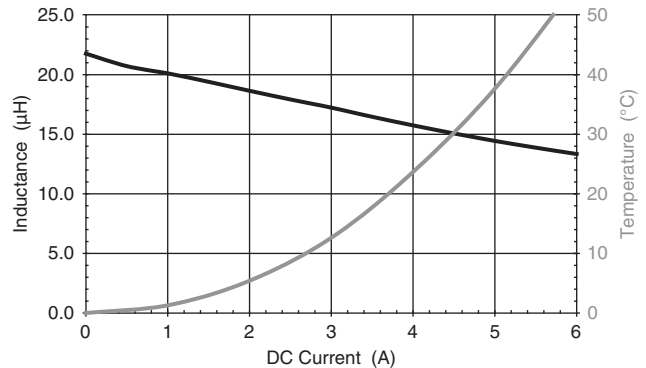
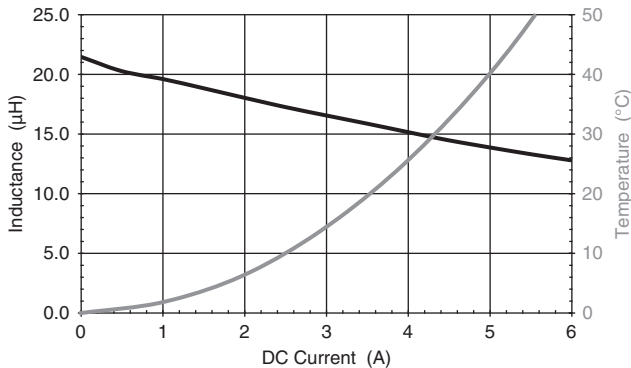
TJ32UEB150MHT (TJ3-HT 2U 15 μH ± 20 % EB e2)

TJ31UEB150MHT (TJ3-HT 1U 15 μH ± 20 % EB e2)



TJ32UEB220MHT (TJ3-HT 2U 22 μH ± 20 % EB e2)

TJ31UEB220MHT (TJ3-HT 1U 22 μH ± 20 % EB e2)



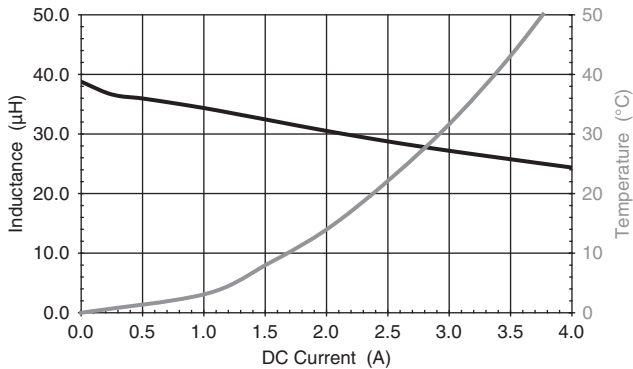


PERFORMANCE GRAPHS: INDUCTANCE VS. DC CURRENT AND DC CURRENT VS. TEMPERATURE

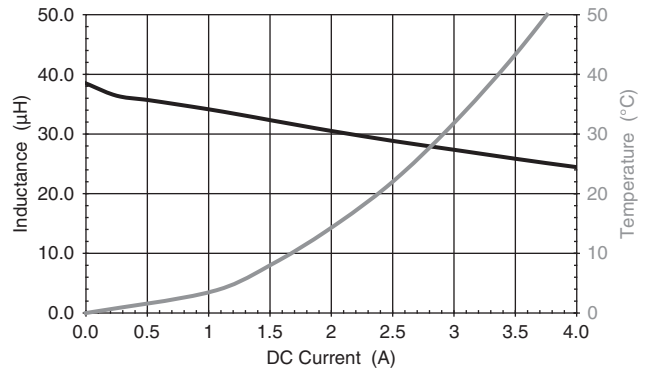
HORIZONTAL MOUNTED

VERTICAL MOUNTED

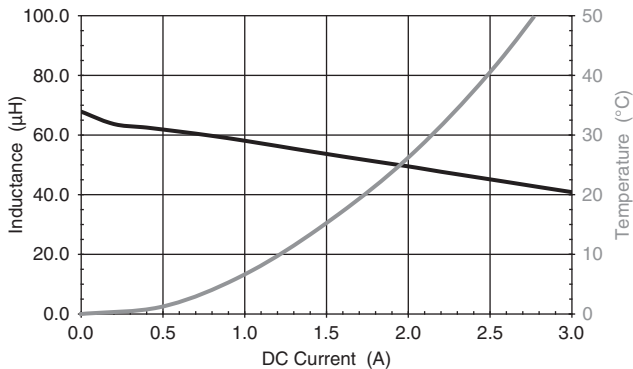
TJ32UEB390MHT (TJ3-HT 2U 39 μH ± 20 % EB e2)



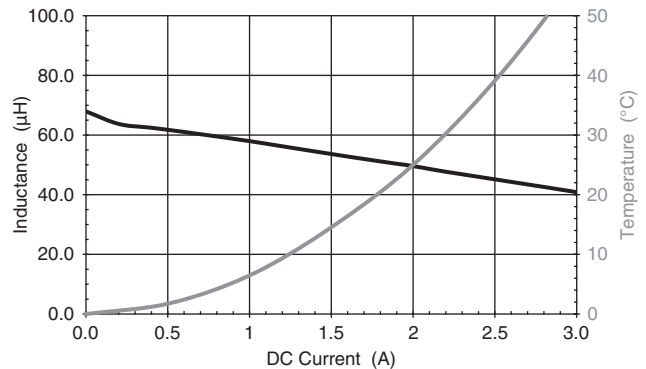
TJ31UEB390MHT (TJ3-HT 1U 39 μH ± 20 % EB e2)



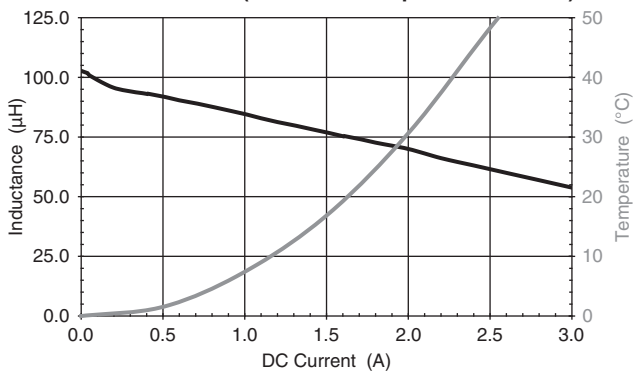
TJ32UEB680MHT (TJ3-HT 2U 68 μH ± 20 % EB e2)



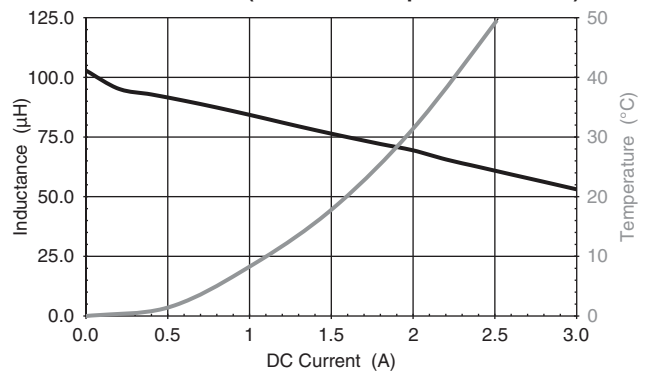
TJ31UEB680MHT (TJ3-HT 1U 68 μH ± 20 % EB e2)



TJ32UEB101MHT (TJ3-HT 2U 100 μH ± 20 % EB e2)



TJ31UEB101MHT (TJ3-HT 1U 100 μH ± 20 % EB e2)





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