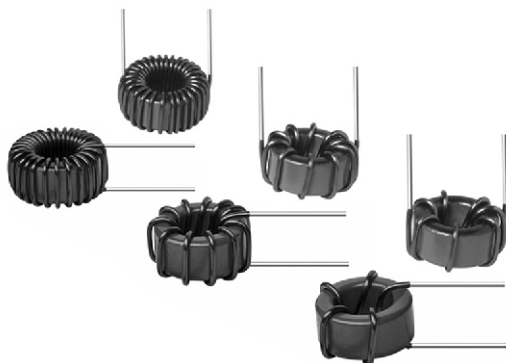


# Toroid, High Current, High Temperature, Radial Leaded



## 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) |                                                             |                                                               |                                             |                       |
| 0.47                        | 20               | 0.0016                  | 0.0024      | 0.0022                    | 0.003       | 36                                                          | 30                                                            | 50                                          | 0.053 [1.346]         |
| 1.2                         | 20               | 0.0028                  | 0.0032      | 0.0032                    | 0.0035      | 28                                                          | 24                                                            | 33                                          | 0.053 [1.346]         |
| 2.2                         | 20               | 0.0036                  | 0.0042      | 0.0042                    | 0.0048      | 23                                                          | 22                                                            | 22                                          | 0.053 [1.346]         |
| 3.9                         | 20               | 0.0045                  | 0.0058      | 0.005                     | 0.006       | 21                                                          | 19.5                                                          | 18                                          | 0.053 [1.346]         |
| 4.7                         | 20               | 0.005                   | 0.0064      | 0.0055                    | 0.007       | 19                                                          | 18.5                                                          | 15                                          | 0.053 [1.346]         |
| 6.8                         | 20               | 0.006                   | 0.0074      | 0.0065                    | 0.0078      | 18                                                          | 17                                                            | 14                                          | 0.053 [1.346]         |
| 10                          | 20               | 0.0075                  | 0.011       | 0.0084                    | 0.012       | 15.8                                                        | 15.5                                                          | 10                                          | 0.053 [1.346]         |
| 22                          | 20               | 0.015                   | 0.019       | 0.016                     | 0.02        | 10.8                                                        | 10.5                                                          | 7                                           | 0.042 [1.067]         |
| 39                          | 20               | 0.02                    | 0.025       | 0.022                     | 0.028       | 9.2                                                         | 9.1                                                           | 5                                           | 0.042 [1.067]         |
| 100                         | 20               | 0.05                    | 0.069       | 0.054                     | 0.075       | 5.5                                                         | 5.5                                                           | 3.0                                         | 0.034 [0.864]         |
| 470                         | 20               | 0.17                    | 0.29        | 0.175                     | 0.3         | 2.8                                                         | 2.8                                                           | 1.5                                         | 0.027 [0.686]         |

## 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 50 °C
- (2) DC current that will cause L<sub>0</sub> to drop approx. 20 %

## DIMENSIONS in inches [millimeters]

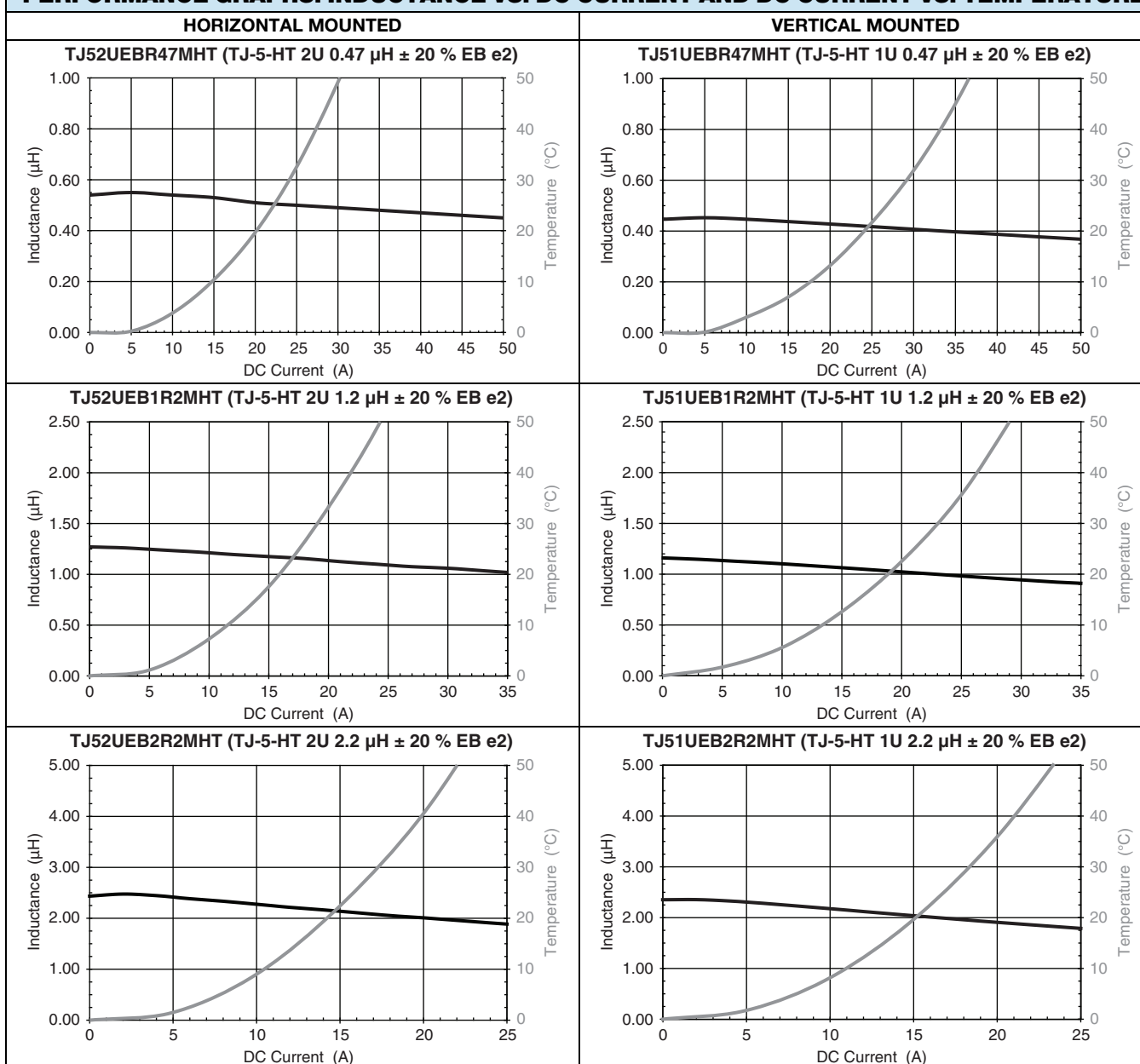
|                                                               |                                                                 |
|---------------------------------------------------------------|-----------------------------------------------------------------|
| <p><b>VERTICAL MOUNT</b><br/>(Mounting/Coating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

**ORDERING INFORMATION**

| TJ5-HT | 1U                    | 10 $\mu$ H       | $\pm 20\%$           | EB           | e2                            |
|--------|-----------------------|------------------|----------------------|--------------|-------------------------------|
| MODEL  | MOUNTING/COATING CODE | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC LEAD (Pb)-FREE STANDARD |

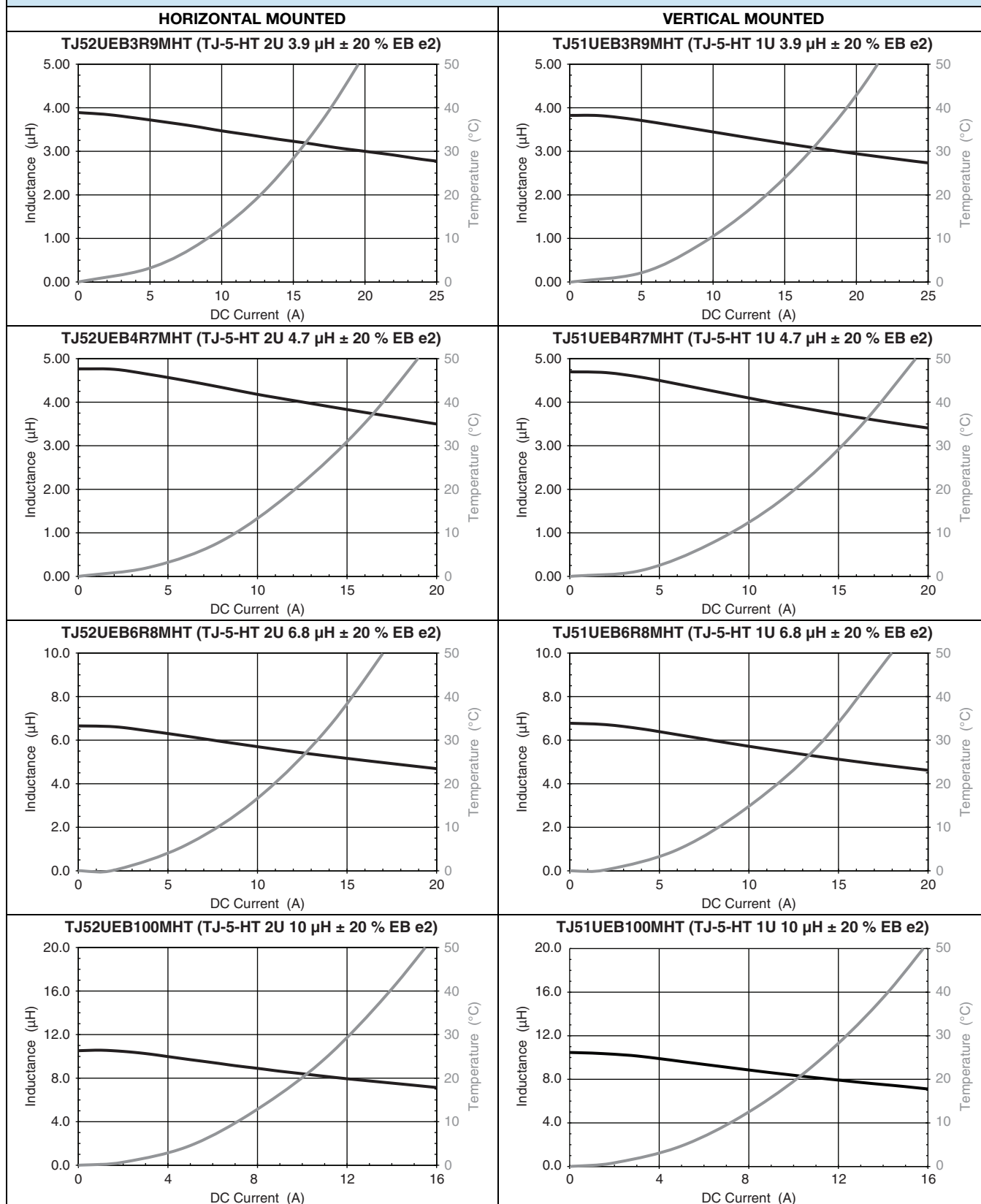
**GLOBAL PART NUMBER**

|          |          |          |                       |          |              |          |                  |          |          |                      |          |          |
|----------|----------|----------|-----------------------|----------|--------------|----------|------------------|----------|----------|----------------------|----------|----------|
| <b>T</b> | <b>J</b> | <b>5</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**

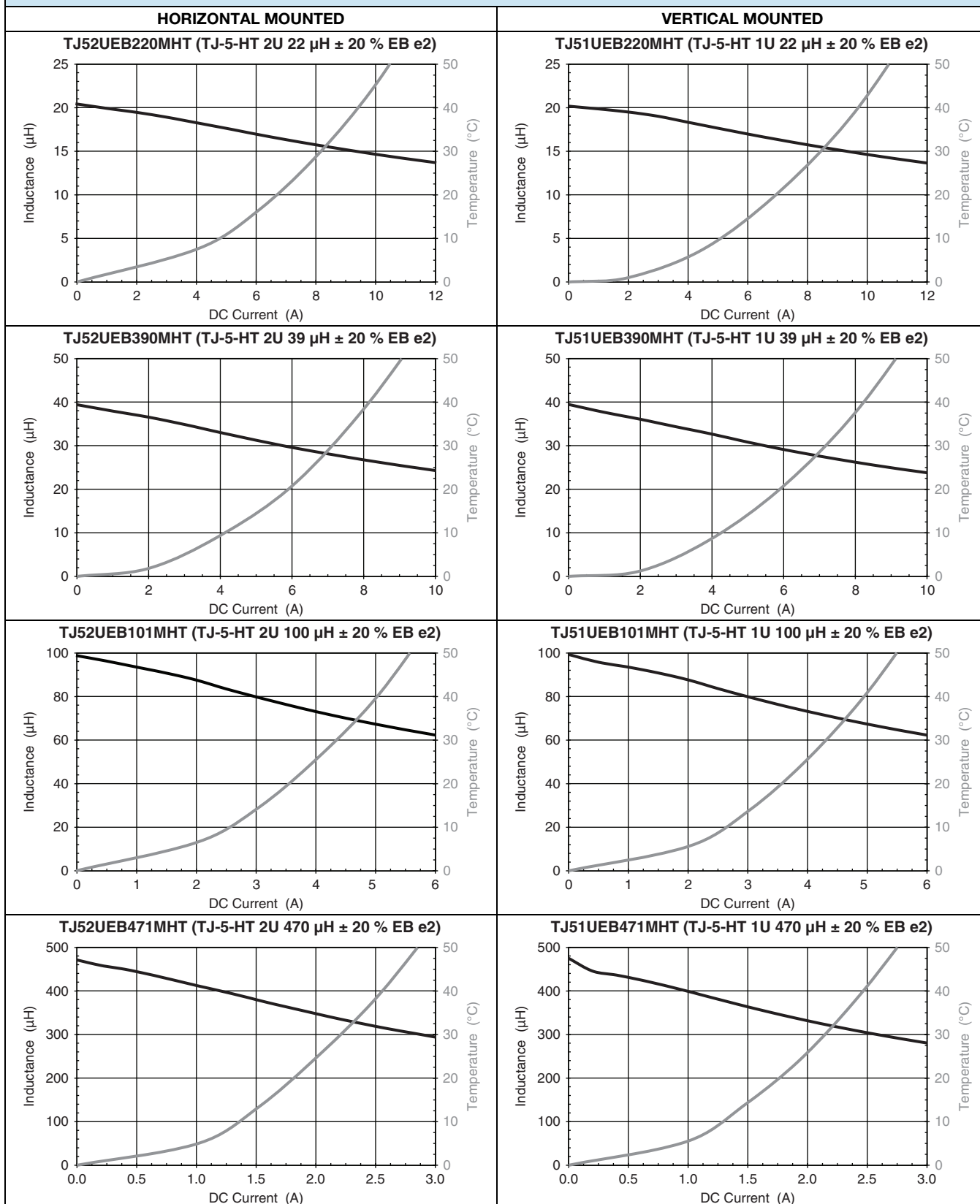


PERFORMANCE GRAPHS: INDUCTANCE VS. DC CURRENT AND DC CURRENT VS. TEMPERATURE





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





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