

## High-Current, High-Temperature Toroidal Inductor



### FEATURES

- High temperature rating to 200 °C
- High current rating, up to 23 A
- Low magnetic radiation due to toroidal shape and distributed air gap
- Low DCR of 0.0014  $\Omega$  typical at 0.39  $\mu\text{H}$
- RoHS-compliant
- Horizontal and vertical mount options

### APPLICATIONS

- Switching power supplies
- EMI/RFI filtering
- Output chokes
- Automotive subsystems
- Deep-well drilling

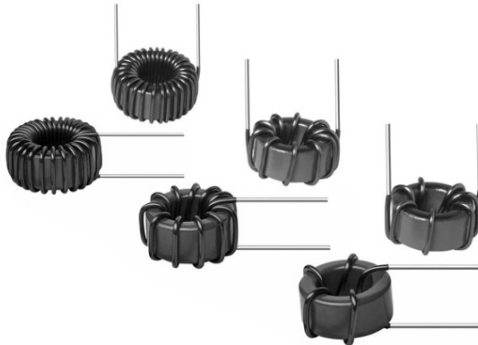
### RESOURCES

- Datasheet: TJ3-HT - <http://www.vishay.com/doc?34234>
- For technical questions contact [magnetics@vishay.com](mailto:magnetics@vishay.com)

Inductors - High Temperature Up to 200 °C



## Toroid, High Current, High Temperature



### FEATURES

- Printed circuit mounting
- Toroid design reduces EMI
- Vertical or horizontal mounting to optimize P.C. board layout
- High temperature rating of 200 °C - no aging
- 100 % lead (Pb)-free and RoHS compliant


**RoHS**  
 COMPLIANT

### APPLICATIONS

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

STANDARD ELECTRICAL SPECIFICATIONS in inches [millimeters]									
INDUCTANCE ( $\mu$ H) $L_0$	TOLERANCE	DCR (VERTICAL MOUNT)		DCR (HORIZONTAL MOUNT)		RATED CURRENT <sup>(1)</sup> VERTICAL MOUNT (AMPS)	RATED CURRENT <sup>(1)</sup> HORIZONTAL MOUNT (AMPS)	SATURATION CURRENT <sup>(2)</sup> (AMPS)	LEAD DIAMETER D
		$\Omega$ TYP.	$\Omega$ MAX.	$\Omega$ TYP.	$\Omega$ MAX.				
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]

#### Note

1. DC current that will cause an approx.  $\Delta T$  of 40 °C
2. DC current that will cause  $L_0$  to drop approx. 20 %

Operating Temperature (ambient +  $\Delta T$ ): - 55 °C to + 200 °C  
 Inductance tested at 0.25  $V_{RMS}$ , 1 kHz  
 DCR tested at 25 °C  $\pm$  5 °C  
 All material rated at 200 °C

DIMENSIONS in inches [millimeters]	
<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small; margin-right: 5px;">Revision 08-Jul-09</div> </div> <p style="text-align: center;"><b>VERTICAL MOUNT</b> (Mounting/Coating Code - 1U)</p>	<div style="display: flex; align-items: center;"> </div> <p style="text-align: center;"><b>HORIZONTAL MOUNT</b> (Mounting/Coating Code - 2U)</p>