



TJ5-HT

High-Current, High-Temperature Toroidal Inductor



FEATURES:

- High temperature rating to 200 °C
- High current rating, up to 50 A
- Low magnetic radiation due to toroidal shape and distributed air gap
- Low DCR of 0.0016 Ω typical at 0.47 μH
- RoHS-compliant
- Horizontal and vertical mount options

KEY APPLICATIONS

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

Datasheet is available on our web site at www.vishay.com
<http://www.vishay.com/doc?34232>

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]

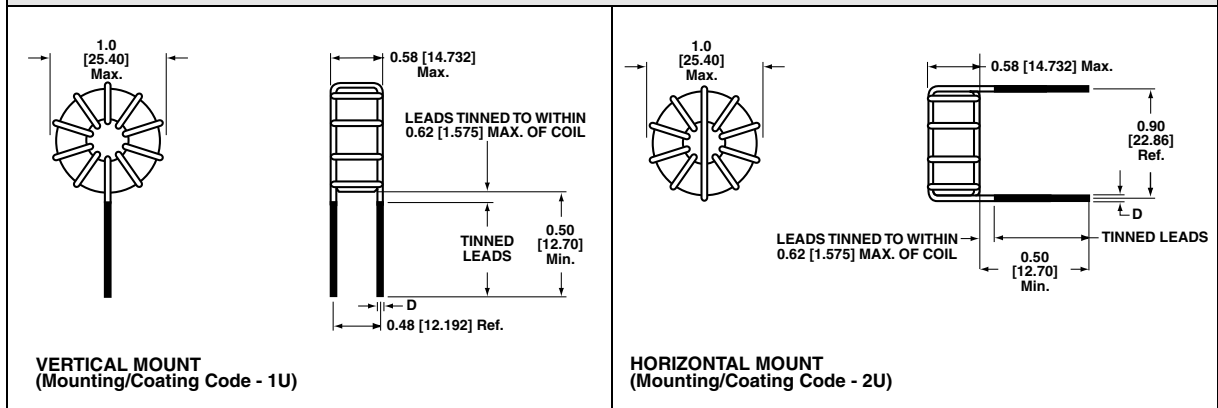
INDUCTANCE (μH) L_0	TOLERANCE	DCR (VERTICAL MOUNT)		DCR (HORIZONTAL MOUNT)		RATED CURRENT ⁽¹⁾ VERTICAL MOUNT (AMPS)	RATED CURRENT ⁽¹⁾ HORIZONTAL MOUNT (AMPS)	SATURATION CURRENT ⁽²⁾ (AMPS)	LEAD DIAMETER D
		Ω TYP.	Ω MAX.	Ω TYP.	Ω MAX.				
0.47	20 %	0.0016	0.0024	0.0022	0.003	36	30	50	0.053 [1.346]
1.2	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]

Note

1. DC current that will cause an approx. ΔT of 50 °C
2. DC current that will cause L_0 to drop approx. 20 %

Operating Temperature (ambient + ΔT): - 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]



NOTICE Specifications of the products displayed herein are subject to change without notice. Vishay Intertechnology, Inc., or anyone on its behalf, assumes no responsibility or liability for any errors or inaccuracies. Information contained herein is intended to provide a product description only. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document. Except as provided in Vishay's terms and conditions of sale for such products, Vishay assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of Vishay products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right. The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Vishay for any damages resulting from such improper use or sale.