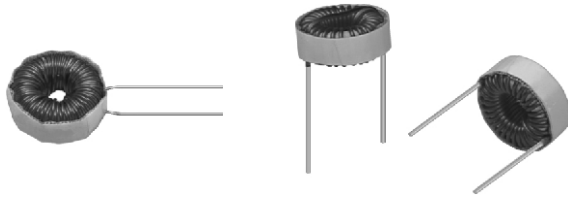


Inductors, Toroid, High Current, Radial Leaded



FEATURES

- Printed circuit mounting
- Wide range of inductance and current ratings
- Toroid design reduces EMI
- Vertical or horizontal mounting to optimize P.C. board layout
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912


RoHS
COMPLIANT

APPLICATION

Switching power supplies, EMI/RFI filtering, output chokes

DIMENSIONS in inches [millimeters]									
VERTICAL MOUNT (MOUNTING/COATING CODE - 1U)					HORIZONTAL MOUNT (MOUNTING/COATING CODE - 2U)				
MODEL	DIAMETER (D) (max.)	HEIGHT (H) (max.)	NOM. LEAD SPACING (Ls)	NOM. LEAD DIAMETER (Ld)	MODEL	DIAMETER (D) (max.)	HEIGHT (H) (max.)	NOM. LEAD SPACING (Ls)	NOM. LEAD DIAMETER (Ld)
TJ3	0.65 [16.5]	0.30 [7.6]	0.26 ± 0.04 [6.60 ± 1.02]	see TJ3 data	TJ3	0.66 [16.8]	0.32 [8.1]	0.58 ± 0.08 [14.7 ± 2.03]	see TJ3 data
TJ4	0.88 [22.4]	0.40 [10.2]	0.31 ± 0.09 [7.87 ± 2.29]	see TJ4 data	TJ4	0.88 [22.4]	0.40 [10.2]	0.78 ± 0.10 [19.8 ± 2.54]	see TJ4 data
TJ5	1.00 [25.4]	0.45 [11.4]	0.37 ± 0.08 [9.40 ± 2.03]	see TJ5 data	TJ5	1.00 [25.4]	0.45 [11.4]	0.90 ± 0.10 [22.9 ± 2.54]	see TJ5 data
TJ6	1.38 [35.1]	0.83 [21.1]	0.73 ± 0.10 [18.5 ± 2.54]	see TJ6 data	TJ6	1.38 [35.1]	0.83 [21.1]	1.22 ± 0.16 [31.0 ± 4.06]	see TJ6 data
TJ7	1.65 [41.9]	0.75 [19.1]	0.62 ± 0.13 [15.8 ± 3.30]	see TJ7 data	TJ7	1.65 [41.9]	0.75 [19.1]	1.48 ± 0.17 [37.6 ± 4.32]	see TJ7 data
TJ8	1.92 [48.8]	1.00 [25.4]	0.82 ± 0.18 [20.8 ± 4.57]	see TJ8 data	TJ8	1.94 [49.3]	1.00 [25.4]	1.76 ± 0.18 [44.7 ± 4.57]	see TJ8 data
TJ9	2.66 [67.6]	1.42 [36.1]	1.25 ± 0.17 [31.8 ± 4.32]	see TJ9 data	TJ9	2.72 [69.1]	1.42 [36.1]	2.49 ± 0.23 [63.2 ± 5.84]	see TJ9 data

Notes

- On larger units and units with finer wire, additional mechanical mounting is recommended.
- (1) Leads stripped to within 0.062" [1.58 mm] of the coil.

ENVIRONMENTAL PERFORMANCE		
TEST	CONDITIONS	SPECIFICATIONS
Thermal Shock	Test condition B1	MIL-STD-202, method 107
Resistance to Soldering Heat	-	MIL-STD-202, method 210
Solderability	-	MIL-STD-202, method 208



ELECTRICAL SPECIFICATION RANGES			
MODEL	INDUCTANCE RANGE (μH) ⁽¹⁾	DC RESISTANCE RANGE (Ω) ⁽²⁾	RATED CURRENT RANGE (A) ⁽³⁾
TJ3	1.2 to 1500	0.006 to 1.476	10.0 to 0.5
TJ4	1.2 to 1500	0.006 to 0.952	10.7 to 0.9
TJ5	1.2 to 1500	0.006 to 0.539	10.1 to 1.3
TJ6	1.2 to 2700	0.004 to 0.499	16.0 to 2.0
TJ7	1.2 to 2700	0.005 to 0.359	16.0 to 2.7
TJ8	1.5 to 3900	0.005 to 0.304	18.5 to 3.2
TJ9	1.5 to 5600	0.004 to 0.224	20.0 to 5.0

Notes

- Operating temperature range: -55 °C to +125 °C
- (1) Measured at 0.25 V_{RMS} at 10 kHz
- (2) DC resistance measured at + 25 °C ± 5 °C
- (3) Maximum continuous operating current based on a calculated temperature rise of 40 °C

STANDARD ELECTRICAL SPECIFICATIONS in inches [millimeters]														
MODEL	IND. (μH)	TOL. (%)	DCR NOM. (Ω)	RATED DC CURRENT (A)	IND. NOM. AT 0 DCA (μH)	INDUCTANCE SHIFT WITH DC CURRENT ⁽¹⁾								LEAD DIAMETER "A"
						10 % CURRENT (A)	IND. MIN. (μH)	20 % CURRENT (A)	IND. MIN. (μH)	30 % CURRENT (A)	IND. MIN. (μH)	40 % CURRENT (A)	IND. MIN. (μH)	
TJ3-XX	1.2	± 20	0.006	10.0	1.19	5.50	0.91	8.88	0.81	12.69	0.71	16.50	0.61	0.032 [0.813]
TJ3-XX	1.5	± 20	0.006	9.5	1.62	4.71	1.24	7.62	1.10	10.88	0.96	14.14	0.82	0.032 [0.813]
TJ3-XX	2.2	± 15	0.007	9.0	2.11	4.13	1.62	6.66	1.44	9.52	1.26	12.38	1.08	0.032 [0.813]
TJ3-XX	2.7	± 15	0.008	8.4	2.67	3.67	2.04	5.92	1.82	8.46	1.59	11.00	1.36	0.032 [0.813]
TJ3-XX	3.3	± 15	0.008	8.2	3.30	3.30	2.52	5.33	2.24	7.62	1.96	9.90	1.68	0.032 [0.813]
TJ3-XX	3.9	± 15	0.009	7.9	3.99	3.00	3.05	4.85	2.72	6.92	2.38	9.00	2.04	0.032 [0.813]
TJ3-XX	4.7	± 15	0.010	7.5	4.75	2.75	3.64	4.44	3.23	6.35	2.83	8.25	2.42	0.032 [0.813]
TJ3-XX	5.6	± 15	0.011	7.3	5.58	2.54	4.27	4.10	3.79	5.86	3.32	7.62	2.84	0.032 [0.813]
TJ3-XX	6.8	± 15	0.011	7.1	6.47	2.36	4.95	3.81	4.40	5.44	3.85	7.07	3.30	0.032 [0.813]
TJ3-XX	8.2	± 15	0.013	6.6	8.45	2.06	6.46	3.33	5.74	4.76	5.03	6.19	4.31	0.032 [0.813]
TJ3-XX	10.0	± 15	0.013	6.5	9.54	1.94	7.30	3.14	6.49	4.48	5.67	5.82	4.86	0.032 [0.813]
TJ3-XX	12.0	± 15	0.015	6.1	11.91	1.74	9.11	2.81	8.10	4.01	7.09	5.21	6.08	0.032 [0.813]
TJ3-XX	15.0	± 15	0.016	5.9	14.55	1.57	11.13	2.54	9.90	3.63	8.66	4.71	7.42	0.032 [0.813]
TJ3-XX	18.0	± 15	0.017	5.6	17.46	1.43	13.35	2.32	11.87	3.31	10.39	4.30	8.90	0.032 [0.813]
TJ3-XX	22.0	± 15	0.024	4.6	22.31	1.27	17.07	2.05	15.17	2.93	13.27	3.81	11.38	0.029 [0.737]
TJ3-XX	27.0	± 15	0.026	4.4	27.75	1.14	21.23	1.84	18.87	2.63	16.51	3.41	14.15	0.029 [0.737]
TJ3-XX	33.0	± 15	0.029	4.3	33.79	1.03	25.85	1.67	22.98	2.38	20.11	3.09	17.23	0.029 [0.737]
TJ3-XX	39.0	± 15	0.038	3.7	38.15	0.97	29.18	1.57	25.94	2.24	22.70	2.91	19.46	0.025 [0.635]
TJ3-XX	47.0	± 15	0.043	3.5	47.65	0.87	36.45	1.40	32.40	2.00	28.35	2.61	24.30	0.025 [0.635]
TJ3-XX	56.0	± 15	0.057	3.1	55.47	0.80	42.44	1.30	37.72	1.86	33.01	2.41	28.29	0.023 [0.584]
TJ3-XX	68.0	± 15	0.063	3.0	66.83	0.73	51.12	1.18	45.44	1.69	39.76	2.20	34.08	0.023 [0.584]
TJ3-XX	82.0	± 15	0.087	2.6	82.50	0.66	63.11	1.07	56.10	1.52	49.09	1.98	42.08	0.020 [0.508]
TJ3-XX	100.0	± 15	0.097	2.4	99.83	0.60	76.37	0.97	67.88	1.38	59.40	1.80	50.91	0.020 [0.508]
TJ3-XX	120.0	± 15	0.107	2.3	118.80	0.55	90.88	0.89	80.78	1.27	70.69	1.65	60.59	0.020 [0.508]
TJ3-XX	150.0	± 15	0.146	1.9	148.14	0.49	113.32	0.80	100.73	1.14	88.14	1.48	75.55	0.018 [0.457]
TJ3-XX	180.0	± 15	0.164	1.8	180.71	0.45	138.24	0.72	122.88	1.03	107.52	1.34	92.16	0.018 [0.457]
TJ3-XX	220.0	± 15	0.225	1.5	221.89	0.40	169.75	0.65	150.89	0.93	132.03	1.21	113.16	0.016 [0.406]
TJ3-XX	270.0	± 15	0.250	1.4	267.30	0.37	204.48	0.59	181.76	0.85	159.04	1.10	136.32	0.016 [0.406]
TJ3-XX	330.0	± 15	0.342	1.2	330.00	0.33	252.45	0.53	224.40	0.76	196.35	0.99	168.30	0.014 [0.356]
TJ3-XX	390.0	± 15	0.378	1.1	392.07	0.30	299.94	0.49	266.61	0.70	233.28	0.91	199.96	0.014 [0.356]
TJ3-XX	470.0	± 15	0.510	1.0	467.31	0.28	357.49	0.45	317.77	0.64	278.05	0.83	238.33	0.013 [0.330]
TJ3-XX	560.0	± 15	0.565	0.9	557.70	0.25	426.64	0.41	379.24	0.59	331.83	0.76	284.43	0.013 [0.330]
TJ3-XX	680.0	± 15	0.637	0.8	684.29	0.23	523.48	0.37	465.32	0.53	407.15	0.69	348.99	0.013 [0.330]
TJ3-XX	820.0	± 15	0.849	0.7	823.81	0.21	630.22	0.34	560.19	0.48	490.17	0.63	420.14	0.011 [0.279]
TJ3-XX	1000.0	± 15	0.951	0.7	999.11	0.19	764.32	0.31	679.39	0.44	594.47	0.57	509.55	0.011 [0.279]
TJ3-XX	1200.0	± 15	1.298	0.6	1203.87	0.17	920.96	0.28	818.63	0.40	716.30	0.52	613.98	0.010 [0.254]
TJ3-XX	1500.0	± 15	1.476	0.5	1497.18	0.15	1145.34	0.25	1018.08	0.36	890.82	0.46	763.56	0.010 [0.254]

Note

- The DC current values listed are typical values that drop the nominal inductance by the percent listed.



STANDARD ELECTRICAL SPECIFICATIONS in inches [millimeters]

Table with columns: MODEL, IND. (μH), TOL. (%), DCR NOM. (Ω), RATED DC CURRENT (A), IND. NOM. AT 0 DCA (μH), and a group of columns for INDUCTANCE SHIFT WITH DC CURRENT (10% to 40% current) including IND. MIN. and CURRENT (A). Rows list various TJ7-XX and TJ8-XX models with their respective specifications.

Note

- The DC current values listed are typical values that drop the nominal inductance by the percent listed.



STANDARD ELECTRICAL SPECIFICATIONS in inches [millimeters]

MODEL	IND. (μH)	TOL. (%)	DCR NOM. (Ω)	RATED DC CURRENT (A)	IND. NOM. AT 0 DCA (μH)	INDUCTANCE SHIFT WITH DC CURRENT ⁽¹⁾								LEAD DIAMETER "A"
						10 % CURRENT (A)	IND. MIN. (μH)	20 % CURRENT (A)	IND. MIN. (μH)	30 % CURRENT (A)	IND. MIN. (μH)	40 % CURRENT (A)	IND. MIN. (μH)	
TJ9-XX	2200.0	± 15	0.131	8.4	2190.24	1.29	1675.53	2.09	1489.36	2.98	1303.19	3.87	1117.02	0.051 [1.30]
TJ9-XX	2700.0	± 15	0.147	8.0	2704.00	1.16	2068.56	1.88	1838.72	2.68	1608.88	3.49	1379.04	0.051 [1.30]
TJ9-XX	3300.0	± 15	0.165	7.6	3317.76	1.05	2538.09	1.69	2256.08	2.42	1974.07	3.15	1692.06	0.051 [1.30]
TJ9-XX	3900.0	± 15	0.181	5.2	3893.76	0.97	2978.73	1.56	2647.76	2.23	2316.79	2.90	1985.82	0.051 [1.30]
TJ9-XX	4700.0	± 15	0.201	5.1	4678.56	0.88	3579.10	1.43	3181.42	2.04	2783.74	2.65	2386.07	0.051 [1.30]
TJ9-XX	5600.0	± 15	0.224	5.0	5595.04	0.81	4280.21	1.30	3804.63	1.86	3329.05	2.42	2853.47	0.051 [1.30]

Note

- The DC current values listed are typical values that drop the nominal inductance by the percent listed.

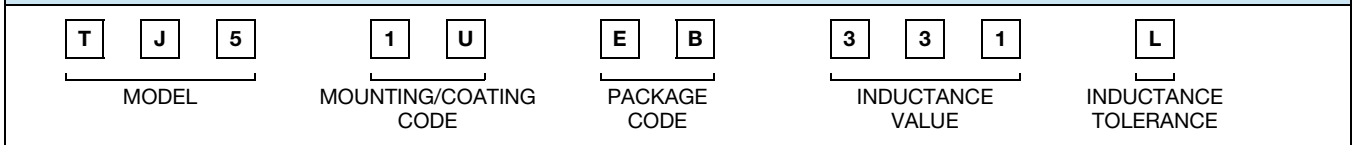
MARKING

- Vishay Dale
 - Model number
 - Date code

ORDERING INFORMATION

TJ5	1U	330 μH	± 15 %	EB	e2
MODEL	MOUNTING/COATING CODE	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER





Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and/or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.

Material Category Policy

Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as RoHS-Compliant fulfill the definitions and restrictions defined under Directive 2011/65/EU of The European Parliament and of the Council of June 8, 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (EEE) - recast, unless otherwise specified as non-compliant.

Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.

Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as Halogen-Free follow Halogen-Free requirements as per JEDEC JS709A standards. Please note that some Vishay documentation may still make reference to the IEC 61249-2-21 definition. We confirm that all the products identified as being compliant to IEC 61249-2-21 conform to JEDEC JS709A standards.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Fixed Inductors](#) category:

Click to view products by [Vishay](#) manufacturer:

Other Similar products are found below :

[CR43NP-680KC](#) [CR54NP-820KC](#) [CR54NP-8R5MC](#) [CTX32CT-100](#) [70F224AI](#) [MGDQ4-00004-P](#) [MHL1ECTTP18NJ](#) [MHL1JCTTD12NJ](#)
[PE-51506NL](#) [PE-53601NL](#) [PE-53602NL](#) [PE-53630NL](#) [PE-53824SNLT](#) [PE-92100NL](#) [PG0434.801NLT](#) [PG0936.113NLT](#) [9310-16](#) [PM06-2N7](#) [PM06-39NJ](#) [A01TK](#) [1206CS-471XJ](#) [HC2-2R2TR](#) [HC2LP-R47-R](#) [HC3-2R2-R](#) [1206CS-151XG](#) [RCH664NP-140L](#) [RCH664NP-4R7M](#)
[RCH8011NP-221L](#) [RCP1317NP-332L](#) [RCP1317NP-391L](#) [RCR1010NP-470M](#) [RCR110DNP-331L](#) [DH2280-4R7M](#) [DS1608C-106](#) [ASPI-4020HI-R10M-T](#) [B10TJ](#) [B82477P4333M](#) [B82498B3101J000](#) [B82498B3680J000](#) [ELJ-RE27NJF2](#) [1812CS-153XJ](#) [1812CS-183XJ](#) [1812CS-223XJ](#) [1812LS-104XJ](#) [1812LS-105XJ](#) [1812LS-124XJ](#) [1812LS-154XJ](#) [1812LS-223XJ](#) [1812LS-224XJ](#) [1812LS-563XJ](#)