VISHAY. www.vishay.com

TR023

Vishay Sfernice

Molded Inductors, Axial Leads, High Frequency and Noise Suppression Applications



FEATURES

Accurate dimensionsSuperior moisture protection



 Material categorization: for definitions of ^{COMPLIANT} compliance please see <u>www.vishay.com/doc?99912</u>

These inductors have copper winding on magnetic core structure.



STANDARD ELECTRICAL SPECIFICATIONS						
MODEL	INDUCTANCE RANGE µH	RATED POWER P _{70 °C} W	LIMITING ELEMENT VOLTAGE V _{RMS}	TOLERANCE ⁽¹⁾ ± %	Q RANGE	I RANGE mA
TR023	0.15 to 1000	0.300	500	10	20 to 50	120 to 3160

Note

 $^{(1)}~\pm$ 10 % for 0.15 $\mu H < L \leq$ 1000 μH . On request: \pm 5 % and \pm 2 % for 1 $\mu H < L \leq$ 1000 μH

MECHANICAL SPECIFICATIONS				
Coating	Molded epoxy			
Weight	1.3 g			

ENVIRONMENTAL SPECIFICATIONS				
Operating temperature range	0 °C to +70 °C			
Temperature limits	-55 °C to +125 °C			

PACKAGING

Standard: tape and reel 1000 pieces, code R15 (R) On request: 250 pieces tape in box "ammopack", code A15 (B)

MARKING

print marked-manufacturer, inductance value, tolerance



PART NUMBER DESCRIPTION (for information only)					
TR	023	10 µH	10 %	В	e1
MODEL	STYLE	VALUE	TOLERANCE	PACKAGING	SPECIAL LEAD (Pb)-FREE

Revision: 28-Apr-16

1 For technical questions, contact: <u>sferaztronics@vishav.com</u> Document Number: 59009

THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT www.vishav.com/doc?91000

Standard:

www.vishay.com

TR023

Vishay Sfernice

STANDARD VALUES						
INDUCTANCE VALUE µH	TOLERANCE %	Q MIN.	TEST FREQUENCY MHz	RESISTANCE MAX. Ω	SRF MIN. MHz	l MAX. mA
0.15	± 10	40	25	0.030	500	3160
0.18	± 10	40	25	0.032	410	3060
0.22	± 10	40	25	0.035	400	2920
0.27	± 10	40	25	0.050	380	2440
0.33	± 10	40	25	0.065	340	2150
0.39	± 10	40	25	0.075	320	2000
0.47	± 10	40	25	0.085	300	1870
0.56	± 10	40	25	0.14	250	1470
0.68	± 10	40	25	0.15	230	1415
0.82	± 10	35	25	0.22	220	1165
1	± 10	35	25	0.30	190	1000
1.2	± 10	20	7.9	0.40	180	870
1.5	± 10	20	7.9	0.42	170	850
1.8	± 10	20	7.9	0.65	150	680
2.2	± 10	20	7.9	0.79	135	620
2.7	± 10	20	7.9	1.20	120	500
3.3	± 10	25	7.9	0.14	75	1465
3.9	± 10	25	7.9	0.15	55	1415
4.7	± 10	25	7.9	0.21	50	1200
5.6	± 10	25	7.9	0.28	50	1035
6.8	± 10	25	7.9	0.37	50	900
8.2	± 10	25	7.9	0.44	45	825
10	± 10	25	7.9	0.60	33	700
12	± 10	40	2.5	1	33	545
15	± 10	35	2.5	1.30	30	480
18	± 10	50	2.5	1.10	35	510
22	± 10	50	2.5	1.20	30	500
27	± 10	50	2.5	1.30	22	480
33	± 10	50	2.5	1.50	20	430
39	± 10	50	2.5	1.70	18	420
47	± 10	50	2.5	2.10	17	375
56	± 10	50	2.5	2.35	14	355
68	± 10	50	2.5	2.80	12	325
82	± 10	50	2.5	3.30	11	300
100	± 10	50	2.5	3.60	10	285
120	± 10	50	0.79	5	6.5	245
150	± 10	50	0.79	6.1	5.5	220
180	± 10	50	0.79	7.5	5.5	200
220	± 10	50	0.79	8.4	5.5	185
270	± 10	50	0.79	9	5	180
330	± 10	50	0.79	10	4.5	170
390	± 10	50	0.79	11	4.3	165
470	± 10	50	0.79	12	4	155
560	± 10	50	0.79	13	3.5	150
680	± 10	50	0.79	14	3.3	145
820	± 10	50	0.79	16	3	135
1000	± 10	50	0.79	17	2.6	120

Revision: 28-Apr-16

2

Document Number: 59009

For technical questions, contact: <u>sferaztronics@vishay.com</u> THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT <u>www.vishay.com/doc?91000</u>



Vishay

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.

Hyperlinks included in this datasheet may direct users to third-party websites. These links are provided as a convenience and for informational purposes only. Inclusion of these hyperlinks does not constitute an endorsement or an approval by Vishay of any of the products, services or opinions of the corporation, organization or individual associated with the third-party website. Vishay disclaims any and all liability and bears no responsibility for the accuracy, legality or content of the third-party website or for that of subsequent links.

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.