

Inductors, Military, MIL-PRF-15305 Qualified, Type LT, Molded, Shielded, Miniature, Axial Leaded



FEATURES

- Flame retardant coating
- Electromagnetic shield
- Small package for a shielded inductor
- Epoxy molded construction provides superior moisture protection
- Precision performance, excellent reliability, sturdy construction

ELECTRICAL SPECIFICATIONS

Inductance Tolerance: $\pm 10\%$ standard

Insulation Resistance: 1000 M Ω minimum per MIL-STD-202, method 302, test condition B

Dielectric Withstanding Voltage: 200 V_{AC} per MIL-STD-202, method 301 (sea level)

Percent Coupling: 3 % maximum per MIL-PRF-15305

Operating Temperature Range: - 55 °C to + 105 °C

MECHANICAL SPECIFICATIONS

Terminal Strength: 3 pounds pull per MIL-STD-202, method 211, test condition A except 180° rotation for a total of 540 °C

Weight: 0.30 g maximum

MATERIAL SPECIFICATIONS

Encapsulant: Epoxy

Standard Terminal: #24 AWG tinned copper

TEST EQUIPMENT ⁽¹⁾

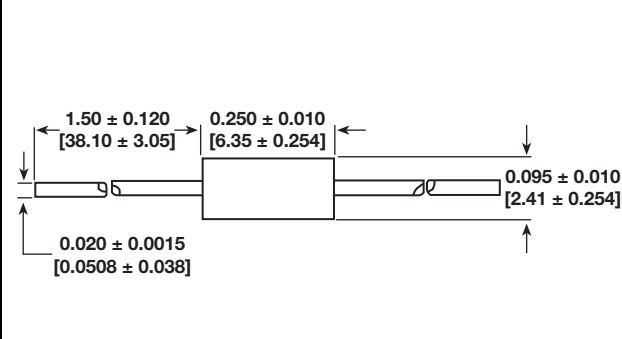
- H/P 4342A Q-meter
- Measurements corporation megacycle meter, model 59
- Wheatstone bridge

Note

⁽¹⁾ Test procedures per MIL-PRF-15305

INDUCTANCE RANGE AND MILITARY STANDARD						
MILITARY STANDARD	INDUCTANCE RANGE (μ H)		CLASSIFICATION		MATERIAL	
	FROM	TO	GRADE	CLASS	CORE	SHIELD
MS21426	1.2	100	1	A	Powered Iron	Powered Iron

ENVIRONMENTAL PERFORMANCE		
TEST	CONDITIONS	SPECIFICATIONS
Barometric Pressure	C	MIL-STD-202, method 105
Thermal Shock	A-1	MIL-STD-202, method 107
Flammability	-	MIL-STD-202, method 111
Overload	-	MIL-PRF-15305
Low Temperature Storage	-	MIL-PRF-15305
Resistance to Soldering Heat	A	MIL-STD-202, method 210
Resistance to Solvents	-	MIL-STD-202, method 215

DIMENSIONS in inches [millimeters]
 <p> 1.50 ± 0.120 [38.10 \pm 3.05] 0.250 ± 0.010 [6.35 \pm 0.254] 0.095 ± 0.010 [2.41 \pm 0.254] 0.020 ± 0.0015 [0.0508 \pm 0.038] </p>



STANDARD ELECTRICAL SPECIFICATIONS										
MODEL	IND. (μH)	TOL. (%)	MILITARY STANDARD	MILITARY TYPE	Q MIN.	TEST FREQ. L AND Q (MHz)	SRF MIN. (MHz) ⁽¹⁾	DCR MAX. (Ω)	RATED DC CURRENT (mA) ⁽²⁾	
MS21426	1.2	± 10	- 14	531	40	7.9	130	0.73	247	
	1.5	± 10	- 15	532	41	7.9	115	0.86	228	
	1.8	± 10	- 16	533	43	7.9	105	0.95	217	
	2.2	± 10	- 17	534	45	7.9	95	1.1	202	
	2.7	± 10	- 18	535	48	7.9	90	1.2	193	
	3.3	± 10	- 19	536	49	7.9	80	1.3	185	
	3.9	± 10	- 20	537	50	7.9	75	1.5	173	
	4.7	± 10	- 21	538	53	7.9	70	2.4	136	
	5.6	± 10	- 22	539	54	7.9	60	2.9	124	
	6.8	± 10	- 23	540	55	7.9	55	3.2	118	
	8.2	± 10	- 24	541	55	7.9	53	3.6	111	
	10.0	± 10	- 25	542	57	7.9	50	4.0	106	
	12.0	± 10	- 26	543	36	2.5	35	3.0	122	
	15.0	± 10	- 27	544	38	2.5	30	3.4	115	
	18.0	± 10	- 28	545	40	2.5	26	3.8	108	
	22.0	± 10	- 29	546	40	2.5	24	4.9	96	
	27.0	± 10	- 30	547	40	2.5	21	5.8	88	
	33.0	± 10	- 31	548	41	2.5	20	6.5	83	
	39.0	± 10	- 32	549	42	2.5	19	7.9	75	
	47.0	± 10	- 33	550	44	2.5	16	9.3	69	
56.0	± 10	- 34	551	44	2.5	15	11	64		
68.0	± 10	- 35	552	45	2.5	13	12	61		
82.0	± 10	- 36	553	45	2.5	11	13	59		
100.0	± 10	- 37	554	40	2.5	10.5	16.8	51		

IRON CORE

Notes

- (1) Measured with full length lead
- (2) Rated DC current: Based on the maximum temperature rise not to exceed 15 °C at + 90 °C ambient

DESCRIPTION - MILITARY PART NUMBER						
MS21426	-14		LT	10	K	531
MILITARY STANDARD	INDUCTANCE VALUE	OR	TYPE	GRADE AND CLASS	FAMILY	ID NUMBER

Note

- Listing of military standard does not imply qualification. Contact factory for latest government QPL information

GLOBAL PART NUMBER											
M	S	2	1	4	2	6	-	1	4	R	U
PRODUCT FAMILY						INDUCTANCE VALUE			PACKAGE CODE		



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.