



Inductors, Commercial, Miniature, Molded, Shielded, Axial Leaded



ELECTRICAL SPECIFICATIONS

- Inductance Range:** 0.1 μ H to 820 μ H
- Inductance Tolerance:** \pm 10 %
- Dielectric Strength:** 700 V_{RMS} at sea level
- Operating Temperature:** -55 °C to +125 °C
- Self-Resonant Frequency:** Measured per MIL-PRF-15305 (latest revision)
- Q:** Measured on a Q-meter
- Maximum Current:** Based on temperature rise not to exceed 35 °C at +90 °C ambient

MECHANICAL SPECIFICATIONS

Terminal Strength: Meets 5 lb pull test, three 360° rotations in alternate directions when tested per MIL-PRF-15305 (latest revision)

FEATURES

- Ultra-reliable molded shielded miniature RF inductor
- Epoxy molded envelope and shielding
- Offers reliability, electrical performance and minimum coupling in high density packaging
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



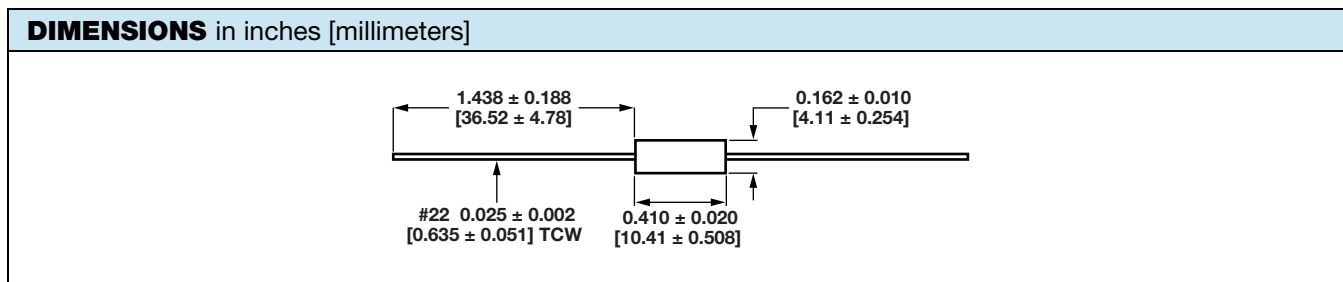
RoHS COMPLIANT

DENSITY SPECIFICATIONS

- Weight:** 0.75 g maximum
- Shielding:** At the test frequency, two units assembled side by side exhibit less than 3 % coupling

ENVIRONMENTAL SPECIFICATIONS

- Moisture:** Per MIL-STD-202, method 106
- Vibration:** High frequency, 10 Hz to 2000 Hz at 20 G \pm 10 % maximum for 12 logarithmic swings each of 20 min duration repeated for each of three mutually perpendicular planes
- Shock:** 100 g, 6 ms



STANDARD ELECTRICAL SPECIFICATIONS								
MODEL	IND. (μ H)	TOL. (%)	Q MIN.	TEST FREQUENCY Q (MHz)	SRF MIN. (MHz)	DCR MAX. (Ω)	RATED DC CURRENT (mA)	INCREMENTAL CURRENT (mA) ⁽¹⁾
IMS-5SWD-65	0.10	\pm 10	50	25	250	0.025	2900	2900
IMS-5SWD-65	0.12	\pm 10	51	25	250	0.034	2800	2800
IMS-5SWD-65	0.15	\pm 10	51	25	250	0.037	2750	2750
IMS-5SWD-65	0.18	\pm 10	50	25	250	0.047	2200	2200
IMS-5SWD-65	0.22	\pm 10	49	25	250	0.067	1700	1700
IMS-5SWD-65	0.27	\pm 10	47	25	250	0.11	1500	1500
IMS-5SWD-65	0.33	\pm 10	46	25	250	0.13	1300	1300
IMS-5SWD-65	0.39	\pm 10	44	25	250	0.18	1100	1100
IMS-5SWD-65	0.47	\pm 10	44	25	235	0.25	1000	1000
IMS-5SWD-65	0.56	\pm 10	43	25	210	0.33	900	900
IMS-5SWD-65	0.68	\pm 10	42	25	190	0.45	750	750
IMS-5SWD-65	0.82	\pm 10	40	25	180	0.59	600	600

Note

⁽¹⁾ Incremental Current: The DC current required to cause a 5 % reduction in the nominal inductance value



STANDARD ELECTRICAL SPECIFICATIONS									
MODEL	IND. (μH)	TOL. (%)	Q MIN.	TEST FREQUENCY Q (MHz)	SRF MIN. (MHz)	DCR MAX. (Ω)	RATED DC CURRENT (mA)	INCREMENTAL CURRENT (mA) ⁽¹⁾	
IMS-5SWD-65	1.0	± 10	47	25	140	0.07	1900	1900	IRON CORE
IMS-5SWD-65	1.2	± 10	46	7.9	130	0.093	1600	1600	
IMS-5SWD-65	1.5	± 10	45	7.9	115	0.12	1300	1300	
IMS-5SWD-65	1.8	± 10	43	7.9	105	0.14	1200	1200	
IMS-5SWD-65	2.2	± 10	45	7.9	100	0.19	1100	1100	
IMS-5SWD-65	2.7	± 10	46	7.9	92	0.28	950	950	
IMS-5SWD-65	3.3	± 10	44	7.9	85	0.35	800	800	
IMS-5SWD-65	3.9	± 10	44	7.9	75	0.40	750	750	
IMS-5SWD-65	4.7	± 10	44	7.9	70	0.55	650	650	
IMS-5SWD-65	5.6	± 10	47	7.9	65	0.72	550	550	
IMS-5SWD-65	6.8	± 10	50	7.9	55	1.02	500	500	
IMS-5SWD-65	8.2	± 10	50	7.9	50	1.32	475	475	
IMS-5SWD-65	10	± 10	49	7.9	46	1.62	450	450	
IMS-5SWD-65	12	± 10	55	2.5	44	2.0	400	400	
IMS-5SWD-65	15	± 10	44	2.5	49	0.80	620	250	FERRITE CORE
IMS-5SWD-65	18	± 10	45	2.5	45	0.89	610	235	
IMS-5SWD-65	22	± 10	46	2.5	41	0.96	600	220	
IMS-5SWD-65	27	± 10	49	2.5	38	1.19	500	200	
IMS-5SWD-65	33	± 10	45	2.5	34	1.37	490	190	
IMS-5SWD-65	39	± 10	53	2.5	29	1.93	410	180	
IMS-5SWD-65	47	± 10	52	2.5	27	2.11	400	175	
IMS-5SWD-65	56	± 10	49	2.5	25	2.23	380	160	
IMS-5SWD-65	68	± 10	51	2.5	21	2.70	370	150	
IMS-5SWD-65	82	± 10	45	2.5	10.5	2.44	360	140	
IMS-5SWD-65	100	± 10	52	2.5	10	3.12	325	120	
IMS-5SWD-65	120	± 10	57	0.79	9.7	3.6	290	95	
IMS-5SWD-65	150	± 10	56	0.79	8.5	4.1	275	90	
IMS-5SWD-65	180	± 10	60	0.79	8.0	4.4	260	85	
IMS-5SWD-65	220	± 10	58	0.79	7.5	5.0	250	80	
IMS-5SWD-65	270	± 10	60	0.79	7.0	5.8	240	70	
IMS-5SWD-65	330	± 10	54	0.79	6.5	6.4	225	65	
IMS-5SWD-65	390	± 10	67	0.79	6.2	7.4	200	60	
IMS-5SWD-65	470	± 10	60	0.79	5.7	9.5	180	58	
IMS-5SWD-65	560	± 10	60	0.79	4.7	10.5	174	55	
IMS-5SWD-65	680	± 10	60	0.79	4.5	11.8	168	50	
IMS-5SWD-65	820	± 10	57	0.79	4.2	13.0	152	45	

Note

⁽¹⁾ Incremental Current: The DC current required to cause a 5 % reduction in the nominal inductance value

MARKING
- Color coded per MIL-PRF-15305

ORDERING INFORMATION				
IMS-5SWD-65	0.47 μH	10 %	ER	e2
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER														
I	M	S	5	S	W	D	E	R	R	4	7	K	6	5
MODEL						PACKAGE CODE		INDUCTANCE VALUE			INDUCTANCE TOLERANCE	SERIES		



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.