

Inductors, Miniature, Shielded, Axial Leaded



ELECTRICAL SPECIFICATIONS

Inductance Tolerance: $\pm 10\%$ on Q-meter for 0.10 μH to 22 μH $\pm 5\%$ on 1KC bridge for 27 μH to 1000 μH $\pm 10\%$ on 1KC bridge for 1200 μH to 56 000 μH

Dielectric Strength: 700 V_{RMS} at sea level

Operating Temperature: - 55 °C to + 125 °C

Self-Resonant Frequency: Minimum SRF measured with full length leads on grid-dip meter

Q: Measured on a Q-meter

Maximum Current: Based on temperature rise not to exceed 40 °C at + 85 °C ambient

FEATURES

- Miniature shielded inductor
- High inductance-to-size ratio
- Inductance range is 0.10 μH to 56 000 μH
- Encapsulated non-flammable shielded unit
- 0.164" [4.17 mm] diameter by 0.450" [11.43 mm] long envelope
- Offers extremely high inductance for density packaging
- Compliant to RoHS directive 2002/95/EC



RoHS
COMPLIANT

MECHANICAL SPECIFICATIONS

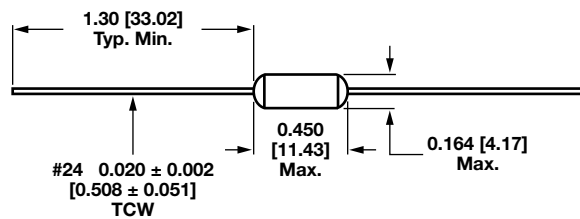
Terminal Strength: Meets 5 lb pull test

DENSITY SPECIFICATIONS

Weight: 0.75 g maximum

Shielding: Less than 3 % coupling with two units mounted side by side at 1000 cycles

DIMENSIONS in inches [millimeters]



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-5WD-40	0.10	± 10	55	25	400	0.020	4000	4000	PHENOLIC
IMS-5WD-40	0.12	± 10	55	25	400	0.029	3350	3350	
IMS-5WD-40	0.15	± 10	55	25	400	0.032	3000	3000	
IMS-5WD-40	0.18	± 10	50	25	366	0.040	2850	2850	
IMS-5WD-40	0.22	± 10	56	25	331	0.045	2700	2700	
IMS-5WD-40	0.27	± 10	50	25	298	0.08	2000	2000	
IMS-5WD-40	0.33	± 10	48	25	270	0.09	1900	1900	
IMS-5WD-40	0.39	± 10	48	25	248	0.16	1420	1420	
IMS-5WD-40	0.47	± 10	48	25	226	0.17	1400	1400	
IMS-5WD-40	0.56	± 10	45	25	206	0.36	960	960	
IMS-5WD-40	0.68	± 10	45	25	188	0.37	940	940	
IMS-5WD-40	0.82	± 10	41	25	171	0.46	870	870	
IMS-5WD-40	1.0	± 10	42	7.9	131	0.062	2300	2300	IRON
IMS-5WD-40	1.2	± 10	43	7.9	120	0.067	2200	2200	
IMS-5WD-40	1.5	± 10	41	7.9	108	0.16	1420	1420	
IMS-5WD-40	1.8	± 10	42	7.9	99	0.17	1370	1370	
IMS-5WD-40	2.2	± 10	42	7.9	90	0.19	1300	1300	
IMS-5WD-40	2.7	± 10	41	7.9	86	0.20	1270	1270	
IMS-5WD-40	3.3	± 10	40	7.9	73	0.31	1030	1030	

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-5WD-40	3.9	± 10	40	7.9	68	0.33	1000	1000	IRON
IMS-5WD-40	4.7	± 10	40	7.9	61	0.58	750	750	
IMS-5WD-40	5.6	± 10	40	7.9	56	0.64	710	710	
IMS-5WD-40	6.8	± 10	40	7.9	51	0.68	680	680	
IMS-5WD-40	8.2	± 10	45	2.5	46	1.3	500	500	
IMS-5WD-40	10	± 10	46	2.5	42	1.4	480	480	
IMS-5WD-40	12	± 10	47	2.5	38	1.5	460	460	
IMS-5WD-40	15	± 10	47	2.5	34	1.7	440	440	
IMS-5WD-40	18	± 10	45	2.5	43	0.88	610	235	FERRITE
IMS-5WD-40	22	± 10	47	2.5	38	0.95	590	220	
IMS-5WD-40	27	± 10	42	2.5	35	1.15	530	200	
IMS-5WD-40	33	± 10	43	2.5	32	1.2	520	193	
IMS-5WD-40	39	± 10	45	2.5	30	1.6	450	183	
IMS-5WD-40	47	± 10	46	2.5	26	1.8	420	177	
IMS-5WD-40	56	± 10	40	2.5	24	2.2	390	170	
IMS-5WD-40	68	± 10	40	2.5	22	2.3	375	165	
IMS-5WD-40	82	± 10	42	0.79	14	2.4	360	160	
IMS-5WD-40	100	± 10	63	0.79	12	2.6	345	157	
IMS-5WD-40	120	± 10	62	0.79	11	2.9	330	145	
IMS-5WD-40	150	± 10	63	0.79	10	3.3	315	126	
IMS-5WD-40	180	± 10	60	0.79	9.2	3.6	300	110	
IMS-5WD-40	220	± 10	57	0.79	8.8	4.1	280	105	
IMS-5WD-40	270	± 10	52	0.79	8.0	4.8	260	91	
IMS-5WD-40	330	± 10	50	0.79	7.2	5.6	240	87	
IMS-5WD-40	390	± 10	43	0.79	6.8	6.2	230	72	
IMS-5WD-40	470	± 10	66	0.79	6.4	10.0	180	67	
IMS-5WD-40	560	± 10	64	0.79	6.0	11.5	170	65	
IMS-5WD-40	680	± 10	71	0.79	5.2	12.0	160	60	
IMS-5WD-40	820	± 10	67	0.79	4.8	13.8	150	55	
IMS-5WD-40	1000	± 10	62	0.250	4.5	16.0	140	52	
IMS-5WD-40	1200	± 10	52	0.250	1.2	18.2	135	50	
IMS-5WD-40	1500	± 10	51	0.250	1.2	23.7	118	48	
IMS-5WD-40	1800	± 10	51	0.250	1.1	30.2	105	42	
IMS-5WD-40	2200	± 10	50	0.250	1.0	33.7	99	37	
IMS-5WD-40	2700	± 10	51	0.250	0.94	43.1	87	33	
IMS-5WD-40	3300	± 10	52	0.250	0.84	48.7	82	30	
IMS-5WD-40	3900	± 10	48	0.250	0.77	62.7	72	29	
IMS-5WD-40	4700	± 10	48	0.250	0.67	70.5	68	28	
IMS-5WD-40	5600	± 10	48	0.250	0.65	104	56	24	
IMS-5WD-40	6800	± 10	45	0.250	0.59	118	53	20	
IMS-5WD-40	8200	± 10	38	0.250	0.46	146	47	18	
IMS-5WD-40	10 000	± 10	36	0.079	0.38	76.6	66	15	
IMS-5WD-40	12 000	± 10	36	0.079	0.30	109	55	14	
IMS-5WD-40	15 000	± 10	38	0.079	0.26	119	52	13	
IMS-5WD-40	18 000	± 10	38	0.079	0.24	138	49	13	
IMS-5WD-40	22 000	± 10	32	0.079	0.23	219	39	12	
IMS-5WD-40	27 000	± 10	32	0.079	0.22	259	35	12	
IMS-5WD-40	33 000	± 10	32	0.079	0.20	296	33	11	
IMS-5WD-40	39 000	± 10	30	0.079	0.17	395	29	10	
IMS-5WD-40	47 000	± 10	25	0.079	0.16	452	27	9	
IMS-5WD-40	56 000	± 10	25	0.079	0.15	499	26	8	

Note

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



MARKING

- Model
- Inductance value
- Tolerance
- Date code

ORDERING INFORMATION

IMS-5WD-40
MODEL

0.10 μ H
INDUCTANCE
VALUE

10 %
INDUCTANCE
TOLERANCE

ER
PACKAGE
CODE

e2
JEDEC LEAD (Pb)-FREE
STANDARD

GLOBAL PART NUMBER

I M S 0 5 W D
MODEL

E R
PACKAGE
CODE

R 1 0
INDUCTANCE
VALUE

K
INDUCTANCE
TOLERANCE

4 0
SERIES



Disclaimer

All product specifications and data are subject to change without notice.

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 herein or in any other disclosure relating to any product.

Vishay disclaims any and all liability arising out of the use or application of any product described herein or of any information provided herein to the maximum extent permitted by law. The product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein, which apply to these products.

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.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications unless otherwise expressly indicated. Customers using or selling Vishay products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify Vishay for any damages arising or resulting from such use or sale. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.