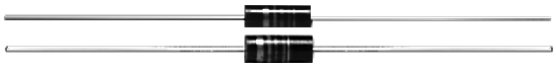
Inductors, Commercial, Miniature, Molded, Shielded, Axial Leaded



ELECTRICAL SPECIFICATIONS

Inductance Range: 0.1 µH to 820 µH

Inductance Tolerance: ± 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
- Compliant to RoHS directive 2002/95/EC

Pb-free
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

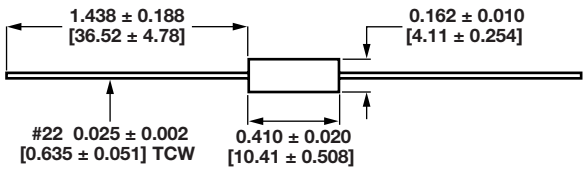
ENVIRONMENTAL SPECIFICATIONS

Moisture: Per MIL-STD-202, method 106

Vibration: High frequency, 10 Hz to 2000 Hz at 20 G ± 10 % maximum for 12 logarythmic swings each of 20 min duration repeated for each of three mutually perpendicular planes

Shock: 100 *g*, 6 ms

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-5SWD-65	0.10	± 10	50	25	250	0.025	2900	2900	PHENOLIC CORE
IMS-5SWD-65	0.12	± 10	51	25	250	0.034	2800	2800	
IMS-5SWD-65	0.15	± 10	51	25	250	0.037	2750	2750	
IMS-5SWD-65	0.18	± 10	50	25	250	0.047	2200	2200	
IMS-5SWD-65	0.22	± 10	49	25	250	0.067	1700	1700	
IMS-5SWD-65	0.27	± 10	47	25	250	0.11	1500	1500	
IMS-5SWD-65	0.33	± 10	46	25	250	0.13	1300	1300	
IMS-5SWD-65	0.39	± 10	44	25	250	0.18	1100	1100	
IMS-5SWD-65	0.47	± 10	44	25	235	0.25	1000	1000	
IMS-5SWD-65	0.56	± 10	43	25	210	0.33	900	900	
IMS-5SWD-65	0.68	± 10	42	25	190	0.45	750	750	
IMS-5SWD-65	0.82	± 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	

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