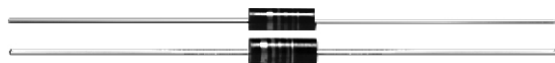


# Inductors, Commercial, Miniature, Molded, Shielded, Axial Leaded



## ELECTRICAL SPECIFICATIONS

**Inductance Range:** 0.1  $\mu$ H to 820  $\mu$ H

**Inductance Tolerance:**  $\pm 10\%$

**Dielectric Strength:** 700 V<sub>RMS</sub> 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



**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

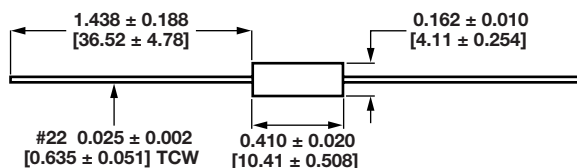
## ENVIRONMENTAL SPECIFICATIONS

**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

## DIMENSIONS in inches [millimeters]



## STANDARD ELECTRICAL SPECIFICATIONS

MODEL	IND. ( $\mu$ H)	TOL. (%)	Q MIN.	TEST FREQUENCY Q (MHz)	SRF MIN. (MHz)	DCR MAX. ( $\Omega$ )	RATED DC CURRENT (mA)	INCREMENTAL CURRENT (mA) <sup>(1)</sup>	PHENOLIC CORE
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

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

## STANDARD ELECTRICAL SPECIFICATIONS

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

### Note

<sup>(1)</sup> 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 MODEL	0.47 $\mu$ H INDUCTANCE VALUE	10 % INDUCTANCE TOLERANCE	ER PACKAGE CODE	e2 JEDEC LEAD (Pb)-FREE STANDARD
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## 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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