Inductors

Commercial, Molded, Shielded, Miniature



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

Pb-free

RoHS COMPLIANT

ELECTRICAL SPECIFICATIONS

Inductance Tolerance: ± 10 % standard. ± 5 % available
Insulation Resistance: 1000 Megohm minimum per MIL-STD-202, Method 302, Test Condition B

Dielectric Withstanding Voltage: 200 VAC per MIL-STD-202, Method 301 (sea level).

Percent Coupling: 3 % maximum per MIL-PRF-15305
Operating Temperature Range: - 55 °C to + 105 °C

STANDARD ELECTRICAL SPECIFICATIONS

IND. (µH)	TOL.	Q MIN.	TEST FREQ. L & Q (MHz)	SELF-* RESONANT FREQ. MIN. (MHz)	DCR MAX. (Ohms)	RATED** DC CURRENT (mA)	INCREMENTAL*** CURRENT	
0.10	± 10 %	54	25.0	490.0	0.10	670	-	IRON CORE
0.12	± 10 %	52	25.0	430.0	0.11	635	-	
0.15	± 10 %	50	25.0	415.0	0.12	610	-	
0.18	± 10 %	49	25.0	375.0	0.13	585	-	
0.22	± 10 %	47	25.0	330.0	0.15	545	-	
0.27	± 10 %	46	25.0	300.0	0.16	530	-	
0.33	± 10 %	44	25.0	260.0	0.18	495	-	
0.39	± 10 %	42	25.0	230.0	0.19	485	-	
0.47	± 10 %	41	25.0	220.0	0.21	460	-	
0.56	± 10 %	41	25.0	210.0	0.23	440	-	
0.68	± 10 %	39	25.0	180.0	0.24	430	-	
0.82	± 10 %	38	25.0	165.0	0.27	405	-	
1.0	± 10 %	37	25.0	150.0	0.30	385	-	
1.2	± 10 %	40	7.9	130.0	0.73	247	-	IRON CORE
1.5	± 10 %	41	7.9	115.0	0.86	228	-	
1.8	± 10 %	43	7.9	105.0	0.95	217	-	
2.2	± 10 %	45	7.9	95.0	1.1	202	-	
2.7	± 10 %	48	7.9	90.0	1.2	193	-	
3.3	± 10 %	49	7.9	80.0	1.3	185	-	
3.9	± 10 %	50	7.9	75.0	1.5	173	-	
4.7	± 10 %	53	7.9	70.0	2.4	136	-	
5.6	± 10 %	54	7.9	60.0	2.9	124	-	
6.8	± 10 %	55	7.9	55.0	3.2	118	-	
8.2	± 10 %	55	7.9	53.0	3.6	111	-	
10.0	± 10 %	57	7.9	50.0	4.0	106	-	
12.0	± 10 %	36	2.5	35.0	3.0	122	-	
15.0	± 10 %	38	2.5	30.0	3.4	115	-	
18.0	± 10 %	40	2.5	26.0	3.8	108	-	
22.0	± 10 %	40	2.5	24.0	4.9	96	-	
27.0	± 10 %	40	2.5	21.0	5.8	88	-	
33.0	± 10 %	41	2.5	20.0	6.5	83	-	
39.0	± 10 %	42	2.5	19.0	7.9	75	-	
47.0	± 10 %	44	2.5	16.0	9.3	69	-	
56.0	± 10 %	44	2.5	15.0	11.0	64	-	
68.0	± 10 %	45	2.5	13.0	12.0	61	-	
82.0	± 10 %	45	2.5	11.0	13.0	59	-	
100.0	± 10 %	40	2.5	10.5	16.8	51	-	
120.0	± 10 %	31	0.79	13.0	5.8	88	27	FERRITE CORE
150.0	± 10 %	33	0.79	12.0	7.9	75	24	
180.0	± 10 %	33	0.79	11.0	9.4	69	22	
220.0	± 10 %	35	0.79	10.0	11.0	64	20	
270.0	± 10 %	37	0.79	9.0	12.0	61	18	
330.0	± 10 %	40	0.79	8.0	16.0	53	16	
390.0	± 10 %	38	0.79	7.8	21.0	46	14	
470.0	± 10 %	36	0.79	7.5	24.0	43	13	
560.0	± 10 %	36	0.79	7.0	28.0	40	12	

* Measured with full length lead. ** **Rated DC Current:** Based on the maximum temperature rise not to exceed 15 °C at + 90 °C ambient.
*** **Incremental Current:** The minimum typical current at which the inductance will be decreased by 5 % from its initial zero DC value.

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: IMS-2 = 0.30 grams maximum

MATERIAL SPECIFICATIONS

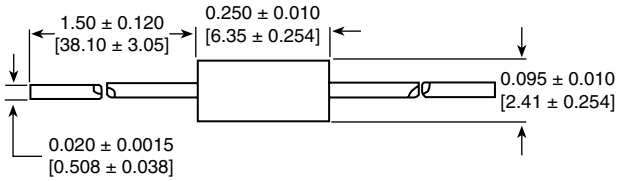
Encapsulant: Epoxy
Standard Terminal: #24 AWG tinned copper

TEST EQUIPMENT*

- H/P 4342A Q-Meter
- Measurements Corporation Megacycle Meter, Model 59
- Wheatstone Bridge

* Test procedures per MIL-PRF-15305

DIMENSIONS in inches [millimeters]



INDUCTANCE RANGE AND MILITARY STANDARD

INDUCTANCE RANGE		MATERIAL	
FROM	TO	CORE	SHIELD
0.10 µH	100 µH	Powdered Iron	Powdered Iron
120 µH	560 µH	Ferrite	Ferrite

ENVIRONMENTAL PERFORMANCE

TEST	CONDITIONS	SPECIFICATIONS
Barometric Pressure	Test Condition C	MIL-STD-202, Method 105
Thermal Shock	Test Condition 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	Test Condition A	MIL-STD-202, Method 210
Resistance to Solvents	-	MIL-STD-202, Method 215

ORDERING INFORMATION

IMS-2	10 µH	± 10 %	ER	e2
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER INFORMATION

I	M	S	0	2	E	R	1	0	0	K
MODEL					PACKING CODE		INDUCTANCE VALUE			TOL.

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