

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

RoHS
COMPLIANT

ELECTRICAL SPECIFICATIONS

Inductance Tolerance: $\pm 10\%$ standard. $\pm 5\%$ 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. (μ H)	TOL.	Q MIN.	TEST FREQ. L & Q (MHz)	SELF- RESONANT FREQ. MIN. (MHz)	DCR MAX. (Ohms)	RATED** DC CURRENT (mA)	INCREMENTAL*** CURRENT	
0.10	$\pm 10\%$	54	25.0	490.0	0.10	670	-	IRON CORE
0.12	$\pm 10\%$	52	25.0	430.0	0.11	635	-	
0.15	$\pm 10\%$	50	25.0	415.0	0.12	610	-	
0.18	$\pm 10\%$	49	25.0	375.0	0.13	585	-	
0.22	$\pm 10\%$	47	25.0	330.0	0.15	545	-	
0.27	$\pm 10\%$	46	25.0	300.0	0.16	530	-	
0.33	$\pm 10\%$	44	25.0	260.0	0.18	495	-	
0.39	$\pm 10\%$	42	25.0	230.0	0.19	485	-	
0.47	$\pm 10\%$	41	25.0	220.0	0.21	460	-	
0.56	$\pm 10\%$	41	25.0	210.0	0.23	440	-	
0.68	$\pm 10\%$	39	25.0	180.0	0.24	430	-	
0.82	$\pm 10\%$	38	25.0	165.0	0.27	405	-	IRON CORE
1.0	$\pm 10\%$	37	25.0	150.0	0.30	385	-	
1.2	$\pm 10\%$	40	7.9	130.0	0.73	247	-	
1.5	$\pm 10\%$	41	7.9	115.0	0.86	228	-	
1.8	$\pm 10\%$	43	7.9	105.0	0.95	217	-	
2.2	$\pm 10\%$	45	7.9	95.0	1.1	202	-	
2.7	$\pm 10\%$	48	7.9	90.0	1.2	193	-	
3.3	$\pm 10\%$	49	7.9	80.0	1.3	185	-	
3.9	$\pm 10\%$	50	7.9	75.0	1.5	173	-	
4.7	$\pm 10\%$	53	7.9	70.0	2.4	136	-	
5.6	$\pm 10\%$	54	7.9	60.0	2.9	124	-	
6.8	$\pm 10\%$	55	7.9	55.0	3.2	118	-	
8.2	$\pm 10\%$	55	7.9	53.0	3.6	111	-	
10.0	$\pm 10\%$	57	7.9	50.0	4.0	106	-	
12.0	$\pm 10\%$	36	2.5	35.0	3.0	122	-	
15.0	$\pm 10\%$	38	2.5	30.0	3.4	115	-	
18.0	$\pm 10\%$	40	2.5	26.0	3.8	108	-	
22.0	$\pm 10\%$	40	2.5	24.0	4.9	96	-	
27.0	$\pm 10\%$	40	2.5	21.0	5.8	88	-	
33.0	$\pm 10\%$	41	2.5	20.0	6.5	83	-	
39.0	$\pm 10\%$	42	2.5	19.0	7.9	75	-	
47.0	$\pm 10\%$	44	2.5	16.0	9.3	69	-	FERRITE CORE
56.0	$\pm 10\%$	44	2.5	15.0	11.0	64	-	
68.0	$\pm 10\%$	45	2.5	13.0	12.0	61	-	
82.0	$\pm 10\%$	45	2.5	11.0	13.0	59	-	
100.0	$\pm 10\%$	40	2.5	10.5	16.8	51	-	
120.0	$\pm 10\%$	31	0.79	13.0	5.8	88	27	
150.0	$\pm 10\%$	33	0.79	12.0	7.9	75	24	
180.0	$\pm 10\%$	33	0.79	11.0	9.4	69	22	
220.0	$\pm 10\%$	35	0.79	10.0	11.0	64	20	
270.0	$\pm 10\%$	37	0.79	9.0	12.0	61	18	
330.0	$\pm 10\%$	40	0.79	8.0	16.0	53	16	
390.0	$\pm 10\%$	38	0.79	7.8	21.0	46	14	
470.0	$\pm 10\%$	36	0.79	7.5	24.0	43	13	
560.0	$\pm 10\%$	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

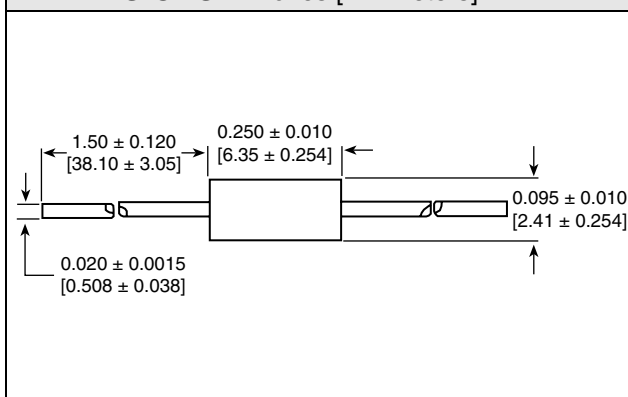
Encapsulant: Epoxy

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 μ H	100 μ H	Powdered Iron	Powdered Iron
120 μ H	560 μ H	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 μ H	± 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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