

SHIELDED WIREWOUND INDUCTORS

MSI SERIES

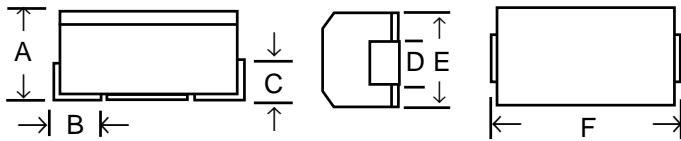


Term. W is
RoHS
compliant
& 260°C
compatible



FEATURES

- ☐ New design features lower DC resistance and increased current ratings
- ☐ Electromagnetic shield results in minimal coupling
- ☐ Epoxy molding provides superior moisture protection
- ☐ Compatible with flow and reflow soldering
- ☐ Standard values from 1uH to 1000uH (intermediate values are available)
- ☐ **Mini 1008 size in development**



RCD's MSI Series is ideally suited for telecom, auto, audio, and power supply line applications. The magnetic shield reduces cross talk and suppresses radiation. High temperature internal construction ensures optimum heat durability compatible with lead-free processes (260°C, 10 Sec.).

DIMENSIONS

Dim.	MSI1210	MSI1812
A	.087 ± .008 [2.21 ± .2]	.126 ± .008 [3.2 ± .2]
B	.024 ± .012 [.6 ± .3]	.024 ± .012 [.6 ± .3]
C	.02 [.5] Min.	.02 [.5] Min.
D	.040 [1.0] Min.	.063 [1.6] Min.
E	.098 ± .01 [2.49 ± .25]	.125 ± .01 [3.2 ± .25]
F	.126 ± .01 [3.2 ± .25]	.177 ± .012 [4.5 ± .3]

MSI1210

Induc. (μH)	Induc. Code	Std. Tol.	Q (Ref)	Test Freq. (MHz)	SRF Min. (MHz)	Max. DCR (ohm)	Rated Current* (mA) DC
1.0	1R0	20%	5	7.96	100	0.08	500
1.5	1R5	20%	5	7.96	80	0.11	400
2.2	2R2	20%	5	7.96	68	0.12	340
3.3	3R3	20%	5	7.96	54	0.15	270
4.7	4R7	20%	5	7.96	46	0.17	240
6.8	6R8	20%	5	7.96	38	0.23	195
10	100	10%	10	2.52	30	0.34	165
15	150	10%	10	2.52	26	0.42	145
22	220	10%	10	2.52	21	0.65	115
33	330	10%	10	2.52	17	0.98	95
47	470	10%	10	2.52	14	1.3	85
68	680	10%	10	2.52	12	2.0	70
100	101	10%	10	.796	10	3.3	55
150	151	10%	10	.796	8	4.2	45
220	221	10%	10	.796	7	7.1	35
330	331	10%	10	.796	5	9.1	30
470	471	10%	10	.796	4	21	25
680	681	10%	10	.796	3	26	20
1000	102	10%	10	.252	2.4	32	15

MSI1812 (consult factory for extended value range)

Induc. (μH)	Induc. Code	Std. Tol.	Q (ref)	Test Freq. (MHz)	SRF Min. (MHz)	Max. DCR (ohm)	Rated Current* (mA) DC
1.0	1R0	20%	10	7.96	200	0.07	800
1.5	1R5	20%	10	7.96	130	0.08	700
2.2	2R2	20%	10	7.96	80	.10	600
3.3	3R3	20%	10	7.96	45	.12	460
4.7	4R7	20%	10	7.96	35	.13	400
6.8	6R8	20%	10	7.96	28	.19	300
10	100	10%	10	2.52	22	.28	250
15	150	10%	10	2.52	20	.39	200
22	220	10%	10	2.52	18	.60	170
33	330	10%	10	2.52	14	.82	140
47	470	10%	10	2.52	11.5	1.2	120
68	680	10%	10	2.52	10	1.6	100
100	101	10%	10	.796	8	2.3	90
150	151	10%	10	.796	7	3.0	65
220	221	10%	10	.796	5.5	5.0	55
330	331	10%	10	.796	4	7.8	45

* Rated current is equal to the current that results in a temperature rise of 20°C or inductance drop of 10%, whichever is smaller

SPECIFICATIONS

Resistance to Soldering Heat	260°C, 10 seconds
Resistance to Solvents	per MIL-STD-202
Coupling (1mm apart)	2% Max 1 uH to 100uH 5% Max > 100uH
Test Equipment	HP4342A Q Meter, HP4191A RF Analyzer, Wheatstone Bridge
Operating Temperature Range	-40°C to +105°C (including self temperature rise)
Current Rating	per table at 85°C or below
Derating	Derate current by 5%/°C above 85°C
Marking	3 digit inductance code, as minimum

P/N DESIGNATION

