

# SURFACE MOUNT SHIELDED CHIP INDUCTORS



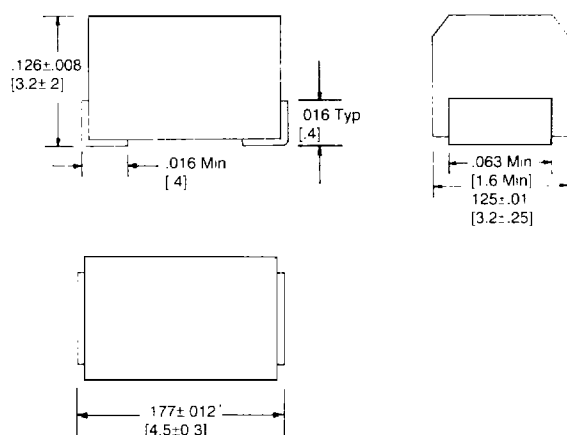
## MSI SERIES

### FEATURES

- Electromagnetic shield results in minimal coupling
- Price is competitive with leaded counterparts
- Epoxy molded construction provides superior moisture protection
- Uniform shape designed for automatic machine placement
- Available on 12mm Tape & Reel
- Compatible with vapor-phase and infra-red reflow soldering
- Terminals prevent leaching and provide strong resistance to pull or shearing
- Marking of inductance and tolerance
- Available to  $\pm 5\%$  tolerance on special order
- Miniature shielded chip inductor in development (consult factory for details)

### DIMENSIONS

#### TYPE MSI-1812

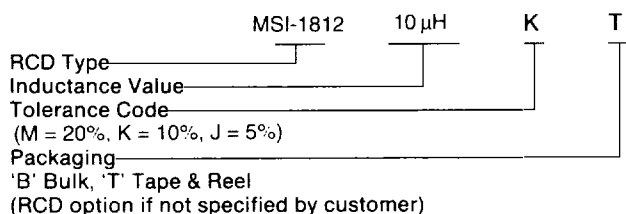


### MARKING FORMAT

Marking code is comprised of a 3-digit resistance code (2 significant digits and a multiplier), followed by the tolerance code. Letter "R" indicates decimal point, e.g. "5R6M" is  $5.6\mu\text{H} \pm 20\%$ , "100K" is  $10\mu\text{H} \pm 10\%$ , "102J" is  $1000\mu\text{H} \pm 5\%$ , etc.

### HOW TO ORDER

Consult factory for availability of non-standard inductance values, or increased Q, SRF, or current ratings



Induc. ( $\mu\text{H}$ )	Standard Tolerance*	Q (Min)	Test Freq. (MHz)	SRF Min. (MHz)	Max. DCR ( $\text{ohm}$ )	Current Rating (mA)
0.10	20	30	25.2	460	0.23	450
0.12	20	30	25.2	460	0.26	450
0.15	20	30	25.2	390	0.29	450
0.18	20	30	25.2	350	0.32	450
0.22	20	30	25.2	310	0.36	450
0.27	20	30	25.2	280	0.40	450
0.33	20	30	25.2	240	0.45	450
0.39	20	30	25.2	215	0.60	410
0.47	20	30	25.2	205	0.75	370
0.56	20	30	25.2	195	0.80	355
0.68	20	30	25.2	165	0.95	310
0.82	20	30	25.2	155	1.20	285
1.0	20	30	7.96	140	0.35	150
1.2	20	30	7.96	120	0.38	145
1.5	20	30	7.96	100	0.40	140
1.8	20	30	7.96	90	0.43	130
2.2	20	30	7.96	80	0.46	120
2.7	20	30	7.96	67	0.49	110
3.3	20	30	7.96	61	0.55	105
3.9	10	30	7.96	56	0.59	100
4.7	10	30	7.96	50	0.62	92
5.6	10	30	7.96	40	0.68	86
6.8	10	30	7.96	32	0.75	80
8.2	10	30	7.96	30	0.82	75
10	10	50	2.52	25	0.90	70
12	10	50	2.52	22	1.00	65
15	10	50	2.52	18	1.10	60
18	10	50	2.52	15	1.24	57
22	10	50	2.52	14	1.36	54
27	10	50	2.52	13	1.56	50
33	10	50	2.52	12	1.72	47
39	10	50	2.52	11	1.89	44
47	10	50	2.52	9	2.10	41
56	10	50	2.52	8	2.34	39
68	10	50	2.52	7.6	2.60	36
82	10	50	2.52	7.2	2.86	34
100	10	50	0.796	7.0	3.25	32
120	10	50	0.796	6.0	3.64	30
150	10	50	0.796	5.0	4.16	28
180	10	40	0.796	4.5	5.72	26
220	10	40	0.796	4.2	6.30	24
270	10	40	0.796	4.0	6.90	23
330	10	40	0.796	3.7	7.54	22
390	10	40	0.796	3.5	8.20	21
470	10	40	0.796	3.3	9.20	19
560	10	40	0.796	2.8	10.5	18
680	10	40	0.796	2.6	12.0	17
820	10	40	0.796	2.2	13.5	16
1000	10	40	0.252	2.0	16.0	15

### SPECIFICATIONS

Resis. to Soldering Heat	260°C, 10 seconds
Resis. to Solvents	per MIL-STD-202
Coupling (1 mm apart)	2% Max 1 $\mu\text{H}$ to 100 $\mu\text{H}$ 5% Max > 100 $\mu\text{H}$
Test Equipment	HP4342A Q Meter HP4191A RF Analyzer Wheatstone Bridge