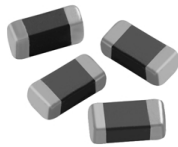




## Monolithic Chip Inductors



### MECHANICAL SPECIFICATIONS

**Solderability:** 90% coverage after 5 second dip in 235°C solder following 60 second preheat at 120°C to 150°C and type R flux dip.

**Resistance To Solder Heat:** 10 seconds in 260°C solder after preheat and flux per above.

**Termination:** 90/10 Sn/Pb.

**Terminal Strength:** 0.5kg for 30 seconds.

**Beam Strength:** 0.3kg.

### FEATURES

- High reliability.
- Surface mountable.
- Magnetically self shielded.
- Nickel barrier plating virtually eliminates silver migration.

### ENVIRONMENTAL SPECIFICATIONS

**Operating Temperature:** - 55°C to + 125°C.

**Thermal Shock:** - 40°C to + 85°C.

**Humidity:** 90% RH at 40°C, 1000 hours at full rated current.

**Load Life:** 85°C for 1000 hours full rated current.

STANDARD ELECTRICAL SPECIFICATIONS in inches [millimeters]								
INDUCTANCE ( $\mu$ H) $\pm 10\%$	TOLERANCE	THICKNESS "D" (Inches)		Q (Min.)	TEST FREQUENCY L & Q (MHz)	MIN. SELF-RESONANT FREQUENCY (MHz)	MAX. DCR (Ohms)	RATED DC CURRENT (mA)
0.047	$\pm 20\%$	0.031 $\pm$ 0.008	[0.80 $\pm$ 0.2]	10	50	260	0.15	50
0.068	$\pm 20\%$	0.031 $\pm$ 0.008	[0.80 $\pm$ 0.2]	10	50	250	0.25	50
0.082	$\pm 20\%$	0.031 $\pm$ 0.008	[0.80 $\pm$ 0.2]	10	50	245	0.25	50
0.10	$\pm 10\%$	0.031 $\pm$ 0.008	[0.80 $\pm$ 0.2]	15	25	276	0.50	50
0.12	$\pm 10\%$	0.031 $\pm$ 0.008	[0.80 $\pm$ 0.2]	15	25	236	0.50	50
0.15	$\pm 10\%$	0.031 $\pm$ 0.008	[0.80 $\pm$ 0.2]	15	25	207	0.60	50
0.18	$\pm 10\%$	0.031 $\pm$ 0.008	[0.80 $\pm$ 0.2]	15	25	190	0.60	50
0.22	$\pm 10\%$	0.031 $\pm$ 0.008	[0.80 $\pm$ 0.2]	15	25	173	0.80	50
0.27	$\pm 10\%$	0.031 $\pm$ 0.008	[0.80 $\pm$ 0.2]	15	25	157	0.80	50
0.33	$\pm 10\%$	0.031 $\pm$ 0.008	[0.80 $\pm$ 0.2]	15	25	144	0.85	35
0.39	$\pm 10\%$	0.031 $\pm$ 0.008	[0.80 $\pm$ 0.2]	15	25	127	1.00	35
0.47	$\pm 10\%$	0.031 $\pm$ 0.008	[0.80 $\pm$ 0.2]	15	25	121	1.35	35
0.56	$\pm 10\%$	0.031 $\pm$ 0.008	[0.80 $\pm$ 0.2]	15	25	110	1.55	35
0.68	$\pm 10\%$	0.031 $\pm$ 0.008	[0.80 $\pm$ 0.2]	15	25	104	1.70	35
0.82	$\pm 10\%$	0.031 $\pm$ 0.008	[0.80 $\pm$ 0.2]	15	25	98	2.10	35
1.0	$\pm 10\%$	0.031 $\pm$ 0.008	[0.80 $\pm$ 0.2]	35	10	87	0.60	25
1.2	$\pm 10\%$	0.031 $\pm$ 0.008	[0.80 $\pm$ 0.2]	35	10	74	0.80	25
1.5	$\pm 10\%$	0.031 $\pm$ 0.008	[0.80 $\pm$ 0.2]	35	10	69	0.80	25
1.8	$\pm 10\%$	0.031 $\pm$ 0.008	[0.80 $\pm$ 0.2]	35	10	64	0.95	25
2.2	$\pm 10\%$	0.031 $\pm$ 0.008	[0.80 $\pm$ 0.2]	35	10	58	1.15	15
2.7	$\pm 10\%$	0.031 $\pm$ 0.008	[0.80 $\pm$ 0.2]	35	10	52	1.35	15
3.3	$\pm 10\%$	0.031 $\pm$ 0.008	[0.80 $\pm$ 0.2]	35	10	46	1.55	15
3.9	$\pm 10\%$	0.031 $\pm$ 0.008	[0.80 $\pm$ 0.2]	35	10	41	1.70	15
4.7	$\pm 10\%$	0.031 $\pm$ 0.008	[0.80 $\pm$ 0.2]	35	10	38	2.10	15
5.6	$\pm 10\%$	0.031 $\pm$ 0.008	[0.80 $\pm$ 0.2]	30	4.0	22	1.55	15
6.8	$\pm 10\%$	0.031 $\pm$ 0.008	[0.80 $\pm$ 0.2]	30	4.0	20	1.70	15
8.2	$\pm 10\%$	0.031 $\pm$ 0.008	[0.80 $\pm$ 0.2]	30	4.0	18	2.10	15
10.0	$\pm 10\%$	0.031 $\pm$ 0.008	[0.80 $\pm$ 0.2]	30	2.0	17	2.55	15

DESCRIPTION		
ILSB-0603 MODEL	3.3 $\mu$ H INDUCTANCE VALUE	$\pm 10\%$ INDUCTANCE TOLERANCE

SAP PART NUMBERING GUIDELINES (INTERNAL)				
I	L	S	B	
PRODUCT FAMILY				
0	6	0	3	
SIZE				
R	K			
PACKAGE CODE				
3	R	3		
INDUCTANCE VALUE				
			K	
				TOL.

See the end of this data book for conversion tables

DIMENSIONS in inches [millimeters]							
<p>90/10 Sn/Pb Termination</p> <p>Ferrite Body</p> <p>Dimensional Outline</p>				<p>Suggested Pad Layout</p>			
A	B	C	D	E	F	G	H
0.063 ± 0.006 [1.6 ± 0.15]	0.031 ± 0.006 [0.8 ± 0.15]	0.012 ± 0.006 [0.3 ± 0.15]	0.031 ± 0.008 [0.8 ± 0.2]	0.105 [2.7]	0.035 [0.9]	0.025 [0.64]	0.040 [1.0]

TAPE AND REEL SPECIFICATIONS 0603 SIZE PER EIA-481-1 in inches [millimeters]	
4000 Piece/Reel	
A <sub>0</sub>	0.045 ± .004 [1.14 ± 0.1]
B <sub>0</sub>	0.068 ± .004 [1.75 ± 0.1]
D <sub>0</sub>	0.059 ± .005/-0.000 [1.5 ± 0.127]
D <sub>1</sub>	0.039 Min. [1.0 Min.]
E <sub>1</sub>	0.069 ± .004 [1.75 ± 0.1]
F	0.138 ± .002 [3.50 ± 0.05]
K <sub>0</sub>	0.045 ± .002 [1.15 ± 0.05]
P <sub>0</sub>	0.157 ± .004 [4.00 ± 0.1]
P <sub>1</sub>	0.157 ± .004 [4.00 ± 0.1]
P <sub>2</sub>	0.079 ± .002 [2.00 ± 0.05]
W	0.327 Max. [8.3 Max.]
T	0.008 ± .002 [0.2 ± 0.05]
A	7.000 ± .079 [178 ± 2.0]
N	2.500 [63.5]
C	0.512 ± .020 [13.00 ± 0.05]
W <sub>1</sub>	0.315 + 0.059/-0.00 [8.00 ± 1.5]
T <sub>1</sub>	0.079 ± .002 [2.00 ± 0.05]