ILSB-0805

Vishay Dale

Monolithic Chip Inductors

FEATURES

- High reliability
- Surface mountable
- Magnetically self shielded
- Nickel barrier plating virtually eliminates silver migration
- 100 % Lead (Pb)-free and RoHS compliant

Pb-free

RoHS COMPLIANT

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: 0.6 kg for 30 seconds
Beam Strength: 1.0 kg

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

INDUCTANCE (µH) ± 10 %	TOLERANCE	THICKNESS "D" Inches [mm]	Q (Min.)	TEST FREQUENCY L & Q (MHz)	MINIMUM SELF- RESONANT FREQUENCY (MHz)	MAXIMUM DCR (Ohms)	RATED DC CURRENT (mA)
0.047	± 20 %	0.035 ± 0.008 [0.90 ± 0.2]	15	50	320	0.20	300
0.056	± 20 %	0.035 ± 0.008 [0.90 ± 0.2]	15	50	300	0.20	300
0.068	± 20 %	0.035 ± 0.008 [0.90 ± 0.2]	15	50	280	0.20	300
0.082	± 20 %	0.035 ± 0.008 [0.90 ± 0.2]	15	50	255	0.20	300
0.10	± 10 %	0.035 ± 0.008 [0.90 ± 0.2]	20	25	279	0.30	250
0.12	± 10 %	0.035 ± 0.008 [0.90 ± 0.2]	20	25	253	0.30	250
0.15	± 10 %	0.035 ± 0.008 [0.90 ± 0.2]	20	25	230	0.40	250
0.18	± 10 %	0.035 ± 0.008 [0.90 ± 0.2]	20	25	213	0.40	250
0.22	± 10 %	0.035 ± 0.008 [0.90 ± 0.2]	20	25	196	0.50	250
0.27	± 10 %	0.035 ± 0.008 [0.90 ± 0.2]	20	25	173	0.50	250
0.33	± 10 %	0.035 ± 0.008 [0.90 ± 0.2]	20	25	167	0.55	250
0.39	± 10 %	0.035 ± 0.008 [0.90 ± 0.2]	25	25	156	0.65	200
0.47	± 10 %	0.049 ± 0.008 [1.25 ± 0.2]	25	25	144	0.65	200
0.56	± 10 %	0.049 ± 0.008 [1.25 ± 0.2]	25	25	133	0.75	150
0.68	± 10 %	0.049 ± 0.008 [1.25 ± 0.2]	25	25	121	0.80	150
0.82	± 10 %	0.049 ± 0.008 [1.25 ± 0.2]	25	25	115	1.00	150
1.0	± 10 %	0.035 ± 0.008 [0.90 ± 0.2]	45	10	87	0.40	50
1.2	± 10 %	0.035 ± 0.008 [0.90 ± 0.2]	45	10	75	0.50	50
1.5	± 10 %	0.035 ± 0.008 [0.90 ± 0.2]	45	10	69	0.50	50
1.8	± 10 %	0.035 ± 0.008 [0.90 ± 0.2]	45	10	64	0.60	50
2.2	± 10 %	0.035 ± 0.008 [0.90 ± 0.2]	45	10	58	0.65	30
2.7	± 10 %	0.049 ± 0.008 [1.25 ± 0.2]	45	10	52	0.75	30
3.3	± 10 %	0.049 ± 0.008 [1.25 ± 0.2]	45	10	48	0.80	30
3.9	± 10 %	0.049 ± 0.008 [1.25 ± 0.2]	45	10	44	0.90	30
4.7	± 10 %	0.049 ± 0.008 [1.25 ± 0.2]	45	10	41	1.00	30
5.6	± 10 %	0.049 ± 0.008 [1.25 ± 0.2]	45	4	37	0.90	15
6.8	± 10 %	0.049 ± 0.008 [1.25 ± 0.2]	45	4	34	1.00	15
8.2	± 10 %	0.049 ± 0.008 [1.25 ± 0.2]	45	4	30	1.10	15
10.0	± 10 %	0.049 ± 0.008 [1.25 ± 0.2]	50	2	28	1.15	15
12.0	± 10 %	0.049 ± 0.008 [1.25 ± 0.2]	50	2	26	1.25	15
15.0	± 10 %	0.049 ± 0.008 [1.25 ± 0.2]	30	1	22	0.80	5
18.0	± 10 %	0.049 ± 0.008 [1.25 ± 0.2]	30	1	21	0.90	5
22.0	± 10 %	0.049 ± 0.008 [1.25 ± 0.2]	30	1	19	1.10	5
27.0	± 10 %	0.049 ± 0.008 [1.25 ± 0.2]	30	1	17	1.15	5
33.0	± 10 %	0.049 ± 0.008 [1.25 ± 0.2]	30	0.4	13	1.25	5

DESCRIPTION

ILSB-0805	3.3 µH	± 10 %	ER	e3
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC LEAD FREE STANDARD

GLOBAL PART NUMBER

I	L	S	B	0	8	0	5	E	R	3	R	3	K
MODEL				SIZE				PACKAGE CODE		INDUCTANCE VALUE			INDUCTANCE TOLERANCE

For technical questions, contact Magnetics@vishay.com

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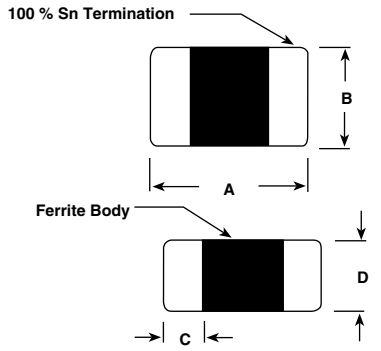
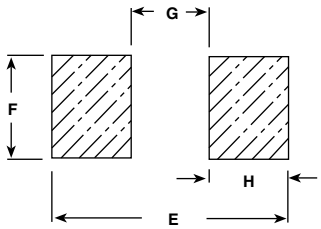
Revision 17-Jan-06

DIMENSIONS in inches [millimeters]



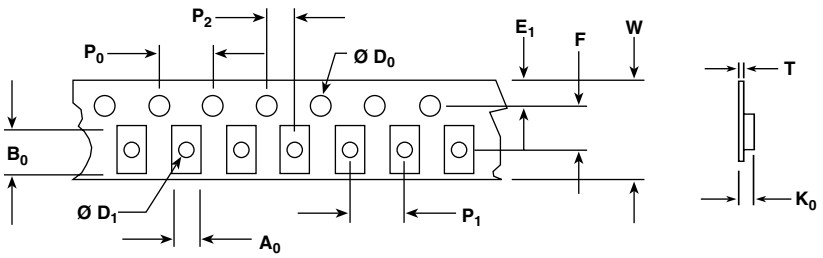
Dimensional Outline

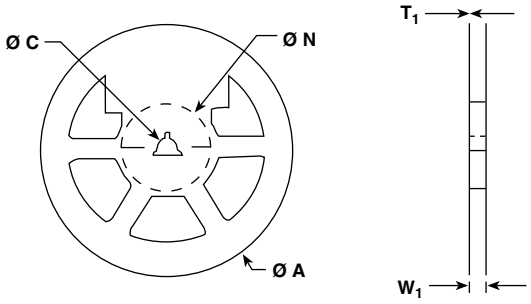


Suggested Pad Layout

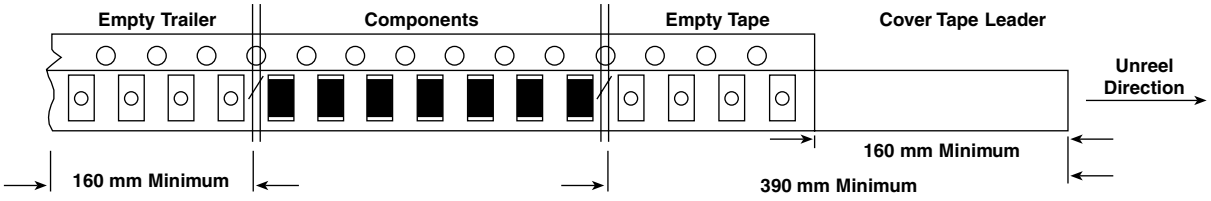
A	B	C	D	E	F	G	H
0.079 ± 0.008 [2.0 ± 0.2]	0.049 ± 0.008 [1.25 ± 0.2]	0.020 ± 0.12 [0.5 ± 0.3]	See Electrical Specs	0.120 [3.0]	0.051 [1.3]	0.040 [1.0]	0.040 [1.0]

TAPE AND REEL SPECIFICATIONS 0805 SIZE PER EIA-481-1 in inches [millimeters]





A_0	0.059 ± .004 [1.50 ± 0.1]
B_0	0.092 ± .004 [2.34 ± 0.1]
D_0	0.059 + .005/- 0.000 [1.5 + 0.127]
D_1	0.039 Min. [1.0 Min.]
E_1	0.069 ± .004 [1.75 ± 0.1]
F	0.138 ± .002 [3.50 ± 0.05]
K_0	0.049 ± .002 [1.24 ± 0.05]
P_0	0.157 ± .004 [4.00 ± 0.1]
P_1	0.157 ± .004 [4.00 ± 0.1]
P_2	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 ± .078 [178 ± 2.0]
N	2.500 [63.5]
C	0.512 ± .020 [13.00 + 0.50]
W_1	0.315 + 0.059/- 0.00 [8.00 + 1.50]
T_1	0.079 ± .002 [2.00 ± 0.05]



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