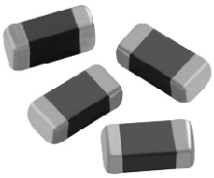
Monolithic Chip Inductors



FEATURES

- High reliability
- Surface mountable
- Magnetically self shielded
- Nickel barrier plating virtuallly eliminates silver migration
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free

RoHS COMPLIANT

HALOGEN FREE

MECHANICAL SPECIFICATIONS

Solderability: 90 % coverage after 5 s dip in 235 °C solder following 60 s preheat at 120 °C to 150 °C and type R flux dip
Resistance to Solder Heat: 10 s in 260 °C solder, after preheat and flux per above
Termination: 100 % Sn
Terminal Strength: 0.6 kg for 30 s
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 h at full rated current
Load Life: 85 °C for 1000 h at full rated current

STANDARD ELECTRICAL SPECIFICATIONS

INDUCTANCE (µH)	TOL.	THICKNESS "D" (INCHES [mm])	TEST FREQ. (MHz) L AND Q	Q MIN.	SRF MIN. (MHz)	DCR MAX. (Ω)	RATED DC CURRENT (mA)
0.047	20 %	0.035 ± 0.008 [0.90 ± 0.2]	50	15	320	0.20	300
0.056	20 %	0.035 ± 0.008 [0.90 ± 0.2]	50	15	300	0.20	300
0.068	20 %	0.035 ± 0.008 [0.90 ± 0.2]	50	15	280	0.20	300
0.082	20 %	0.035 ± 0.008 [0.90 ± 0.2]	50	15	255	0.20	300
0.10	10 %	0.035 ± 0.008 [0.90 ± 0.2]	25	20	279	0.30	250
0.12	10 %	0.035 ± 0.008 [0.90 ± 0.2]	25	20	253	0.30	250
0.15	10 %	0.035 ± 0.008 [0.90 ± 0.2]	25	20	230	0.40	250
0.18	10 %	0.035 ± 0.008 [0.90 ± 0.2]	25	20	213	0.40	250
0.22	10 %	0.035 ± 0.008 [0.90 ± 0.2]	25	20	196	0.50	250
0.27	10 %	0.035 ± 0.008 [0.90 ± 0.2]	25	20	173	0.50	250
0.33	10 %	0.035 ± 0.008 [0.90 ± 0.2]	25	20	167	0.55	250
0.39	10 %	0.035 ± 0.008 [0.90 ± 0.2]	25	25	156	0.65	200
0.47	10 %	0.035 ± 0.008 [0.90 ± 0.2]	25	25	144	0.65	200
0.56	10 %	0.035 ± 0.008 [0.90 ± 0.2]	25	25	133	0.75	150
0.68	10 %	0.035 ± 0.008 [0.90 ± 0.2]	25	25	121	0.80	150
0.82	10 %	0.035 ± 0.008 [0.90 ± 0.2]	25	25	115	1.00	150
1.0	10 %	0.035 ± 0.008 [0.90 ± 0.2]	10	45	87	0.40	50
1.2	10 %	0.035 ± 0.008 [0.90 ± 0.2]	10	45	75	0.50	50
1.5	10 %	0.035 ± 0.008 [0.90 ± 0.2]	10	45	69	0.50	50
1.8	10 %	0.035 ± 0.008 [0.90 ± 0.2]	10	45	64	0.60	50
2.2	10 %	0.035 ± 0.008 [0.90 ± 0.2]	10	45	58	0.65	30
2.7	10 %	0.049 ± 0.008 [1.25 ± 0.2]	10	45	52	0.75	30
3.3	10 %	0.049 ± 0.008 [1.25 ± 0.2]	10	45	48	0.80	30
3.9	10 %	0.049 ± 0.008 [1.25 ± 0.2]	10	45	44	0.90	30
4.7	10 %	0.049 ± 0.008 [1.25 ± 0.2]	10	45	41	1.00	30
5.6	10 %	0.049 ± 0.008 [1.25 ± 0.2]	4	45	37	0.90	15
6.8	10 %	0.049 ± 0.008 [1.25 ± 0.2]	4	45	34	1.00	15
8.2	10 %	0.049 ± 0.008 [1.25 ± 0.2]	4	45	30	1.10	15
10	10 %	0.049 ± 0.008 [1.25 ± 0.2]	2	50	28	1.15	15
12	10 %	0.049 ± 0.008 [1.25 ± 0.2]	2	50	26	1.25	15
15	10 %	0.049 ± 0.008 [1.25 ± 0.2]	1	30	22	0.80	5
18	10 %	0.049 ± 0.008 [1.25 ± 0.2]	1	30	21	0.90	5
22	10 %	0.049 ± 0.008 [1.25 ± 0.2]	1	30	19	1.10	5
27	10 %	0.049 ± 0.008 [1.25 ± 0.2]	1	30	17	1.15	5
33	10 %	0.049 ± 0.008 [1.25 ± 0.2]	0.4	30	13	1.25	5

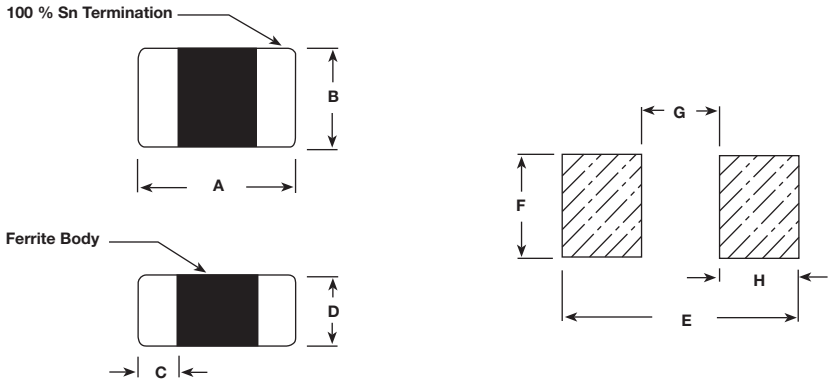
DESCRIPTION

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

GLOBAL PART NUMBER

I	L	S	B	0	8	0	5	E	R	3	R	3	K
PRODUCT FAMILY				SIZE				PACKAGE CODE		INDUCTANCE VALUE			TOL.

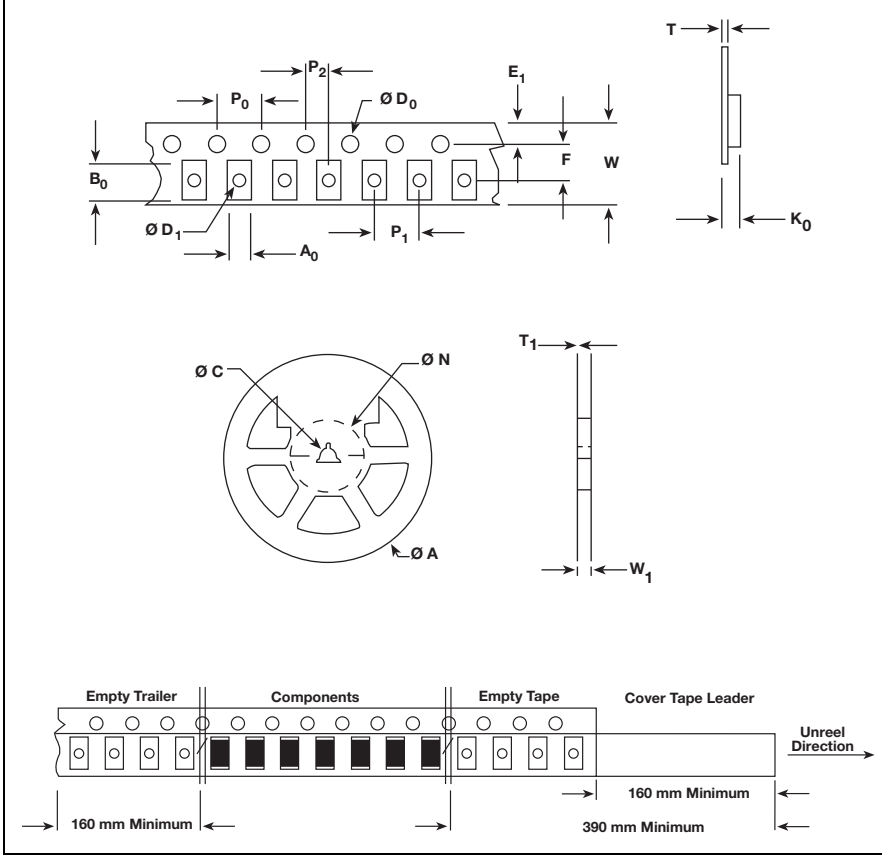
DIMENSIONS in inches [millimeters]



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 ± 0.012 [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 ± 0.004 [1.50 ± 0.1]
B_0	0.092 ± 0.004 [2.34 ± 0.1]
D_0	0.059 + 0.005/- 0.000 [1.5 + 0.127]
D_1	0.039 min. [1.0 min.]
E_1	0.069 ± 0.004 [1.75 ± 0.1]
F	0.138 ± 0.002 [3.50 ± 0.05]
K_0	0.049 ± 0.002 [1.24 ± 0.05]
P_0	0.157 ± 0.004 [4.00 ± 0.1]
P_1	0.157 ± 0.004 [4.00 ± 0.1]
P_2	0.079 ± 0.002 [2.00 ± 0.05]
W	0.327 max. [8.3 max.]
T	0.008 ± 0.002 [0.2 ± 0.05]
A	7.000 ± 0.079 [178 ± 2.0]
N	2.500 [63.5]
C	0.512 ± 0.020 [13.00 ± 0.50]
W_1	0.315 + 0.059/- 0.000 [8.00 + 1.5]
T_1	0.079 ± 0.002 [2.00 ± 0.05]

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