Multilayer Ferrite Chip Inductor



AIML-0805 Series

Request Samples Check Inventory

2.0 x 1.25 x 0.85mm
2.0 x 1.25 x 1.25mm
RoHS/RoHS II Compliant
MSL Level = 1

Features

- Monolithic structure for higher reliability, compact size, & lightweight
- Magnetically shielded design to eliminate cross coupling
- Excellent solderability and heat resistance for reflow soldering
- Perfect shape for PCB mounting with no polarity

Applications

- Resonance circuits, traps and filters
- RF choke for wireless phones and radio equipment
- Communications, video and audio equipment, computers and remote controllers.

Electrical Specifications

Part No.	L(µH)	Tolerance	Q	Test Freq.	SRF (MHz)	DCR (Ω)	Ir (mA)
		(%)	(min)	(MHz)	(min)	±30%	(max)
AIML-0805-R047	0.047	K	15	50	320	0.20	300
AIML-0805-R068	0.068	K	15	50	280	0.20	300
AIML-0805-R082	0.082	K	15	50	255	0.20	300
AIML-0805-R10	0.100	K	20	25	235	0.30	250
AIML-0805-R12	0.120	K	20	25	220	0.30	250
AIML-0805-R15	0.150	K	20	25	200	0.40	250
AIML-0805-R18	0.180	K	20	25	185	0.40	250
AIML-0805-R22	0.220	K	20	25	170	0.50	250
AIML-0805-R27	0.270	K	20	25	150	0.50	250
AIML-0805-R33	0.330	K	20	25	145	0.55	250
AIML-0805-R39	0.390	K	25	25	135	0.65	200
AIML-0805-R47	0.470	K	25	25	125	0.65	200
AIML-0805-R56	0.560	K	25	25	115	0.75	150
AIML-0805-R68	0.680	K	25	25	105	0.80	150
AIML-0805-R82	0.820	K	25	25	100	1.00	150
AIML-0805-1R0	1.000	K	45	10	95	0.40	50
AIML-0805-1R2	1.200	K	45	10	85	0.50	50
AIML-0805-1R5	1.500	K	45	10	80	0.50	50
AIML-0805-1R8	1.800	K	45	10	75	0.60	50
AIML-0805-2R2	2.200	K	45	10	70	0.65	30
AIML-0805-2R7	2.700	K	45	10	45	0.75	30
AIML-0805-3R3	3.300	K	45	10	41	0.80	30
AIML-0805-3R9	3.900	K	45	10	38	0.90	30
AIML-0805-4R7	4.700	K	45	10	35	1.00	30
AIML-0805-5R6	5.600	K	50	4	32	0.90	15
AIML-0805-6R8	6.800	K	50	4	29	1.00	15
AIML-0805-8R2	8.200	K	50	4	26	1.10	15
AIML-0805-100	10.000	K	50	2	24	1.15	15
AIML-0805-120	12.000	K	50	2	22	1.25	15
AIML-0805-150	15.000	K	30	1	19	0.80	5
AIML-0805-180	18.000	K	30	1	18	0.90	5

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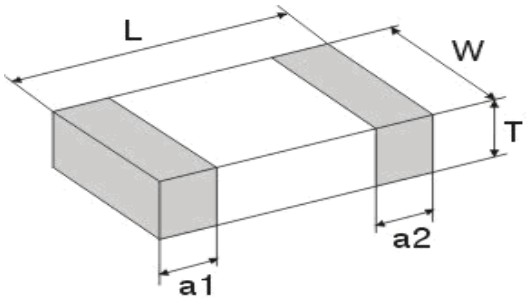
Part No.	L(µH)	Tolerance	Q	Test Freq.	SRF (MHz)	DCR (Ω)	Ir (mA)
		(%)	(min)	(MHz)	(min)	±30%	(max)
AIML-0805-220	22.000	K	30	1.0	16	1.10	5
AIML-0805-270	27.000	K	30	1.0	14	1.15	5
AIML-0805-330	33.000	K	30	0.4	13	1.25	5
AIML-0805-390	39.000	K	35	2.0	8	2.90	4
AIML-0805-470	47.000	K	25	2.0	7.5	3.00	4

Operating Temperature Range: -55°C to + 125°C
Storage Temperature Range: -55°C to + 125°C

Test Conditions and equipment

L, Q: HP4291 Impedance Analyzer DCR: HP4263A LCR meter
SRF: HP4291 Impedance analyzer
Irms: HP4291 Impedance Analyzer, DC power HP6632 and Adapter HP16200. Current when temperature of the product reaches +40°C.
Isat: HP4291 Impedance Analyzer, DC power HP6632 and Adapter HP16200. ΔL/L (initial) ≥ -5%

Mechanical Specifications



L	W	T	a1, a2
2.00 +0.3/-0.1 [0.079 + 0.012/-0.004]	1.25±0.20 [0.049±0.008]	0.85±0.20 [0.033±0.008] for L less than 27µH; 1.25±0.20 [0.049±0.008] for 27µH or above	0.50±0.30 [0.02±0.012]

Dimensions: mm[inches]

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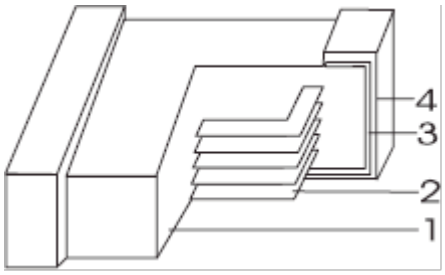
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MSL Level = 1

Part Identification

AIML-0805-□□-□

Inductance Code	Tolerance	Packaging
Please refer to the table above	K: ±10%	T: Tape and Reel 4kpcs / reel for L<27µH 3kpcs / reel for 27µH and above.

Materials



	Part Name	Material
1	Base Material	Ferrite (Ni-Cu-Zn series)
2	Internal Conductor	Ag
3	Terminal Electrode	Ag
4	Electrode Plating	Ni-Sn

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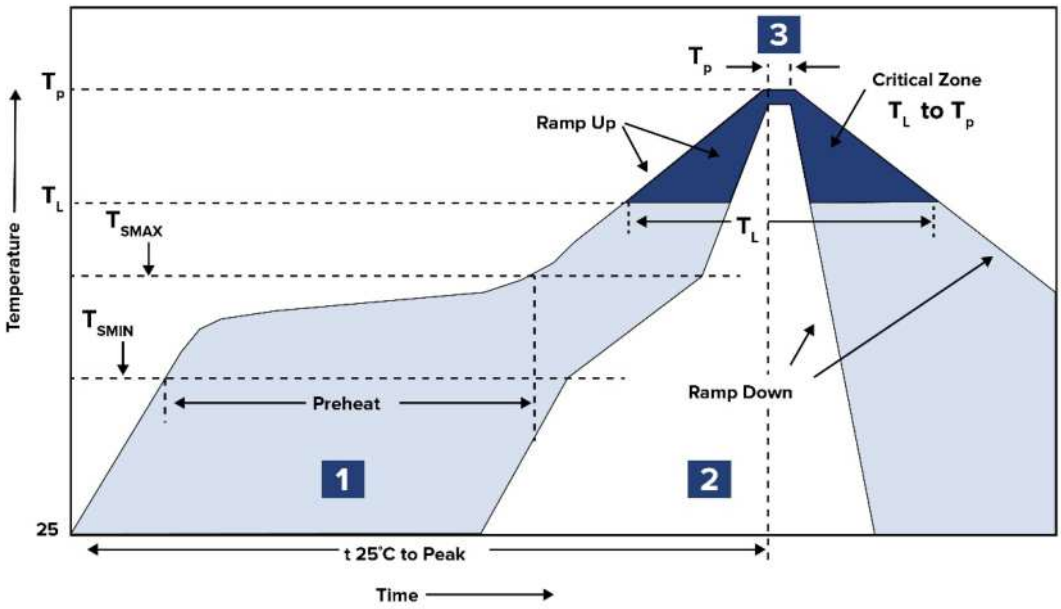


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Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	T_{SMIN} ~ T_{SMAX} 150°C ~ 200°C	60 ~ 120 sec.
2	Reflow	T_L 217°C	60 ~ 90 sec.
3	Peak heat	T_P 260°C	10 sec. MAX
	T(25°C) to Peak: 8 minutes max.		

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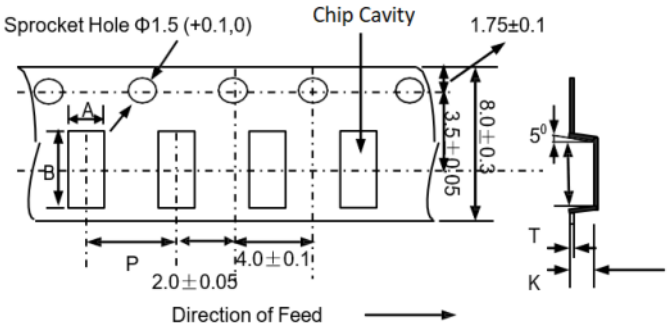
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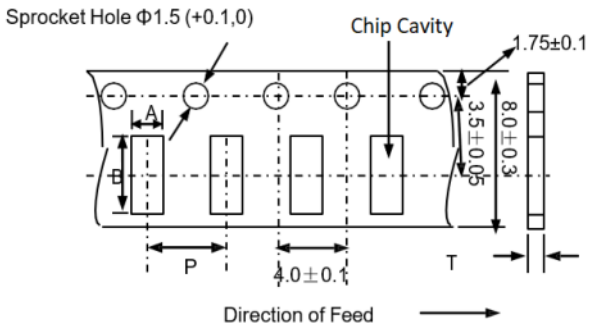
Packaging

T: 4,000pcs / reel for L less than 27µH (paper tape); 3,000pcs / reel for 27µH or above (embossed tape)

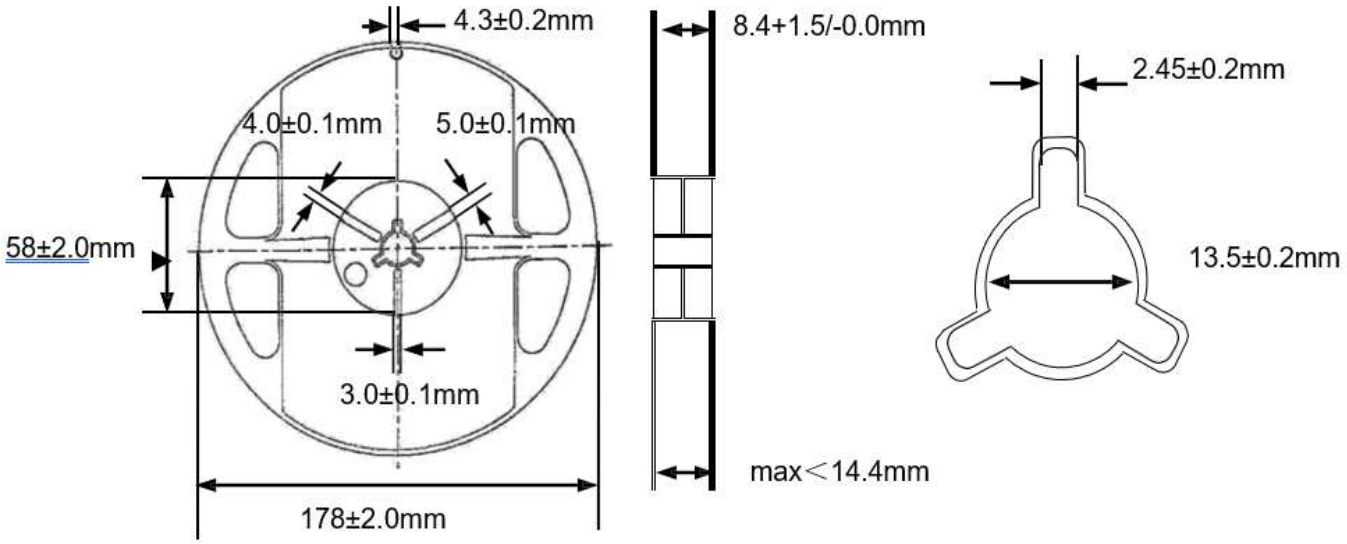
Embossed Tape



Paper Tape



Tape Type	A	B	P	Kmax	Tmax
Embossed	1.55±0.2	2.25±0.2	4.0±0.1	1.45	0.3
Paper	1.50±0.2	2.3±0.2	4.0±0.1	N/A	1.1±0.05



Dimensions: mm

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