Multilayer Ferrite Chip Inductor (High Current)



AIML-0603HC Series

Request Samples | Check Inventory

1.6 x 0.8 x 0.8mm
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

- DC/DC converter circuit for Front End Module such as Skyworks Solution.
- Portable AV equipment such as Digital Camera, Camcorder remote Control.

Electrical Specifications

Part No.	L(µH)	Tolerance (%)	Test Freq. (MHz)	SRF (MHz) (min)	DCR (Ω) ±30%	Isat (mA) (max)	Irms (mA) (max)
AIML-0603HC-R22M	0.22	M	1	200	0.10	1350	1250
AIML-0603HC-R33M	0.33	M	1	190	0.13	1250	1200
AIML-0603HC-R47M	0.47	M	1	180	0.15	1000	1100
AIML-0603HC-R68M	0.68	M	1	160	0.18	950	1150
AIML-0603HC-1R0M	1.0	M	1	125	0.20	650	1000
AIML-0603HC-1R5M	1.5	M	1	100	0.23	420	900
AIML-0603HC-1R8M	1.8	M	1	100	0.26	300	800
AIML-0603HC-2R2M	2.2	M	1	80	0.30	250	850
AIML-0603HC-2R7M	2.7	M	1	90	0.34	180	750
AIML-0603HC-3R3M	3.3	M	1	100	0.40	125	700
AIML-0603HC-4R7M	4.7	M	1	65	0.40	65	700
AIML-0603HC-6R8M	6.8	M	1	45	0.56	130	500
AIML-0603HC-100M	10	M	1	35	0.36	60	500

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) ≥ -30%

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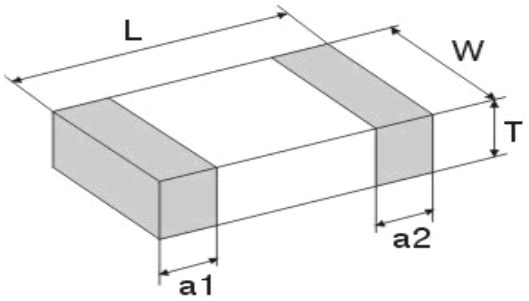


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Mechanical Specifications



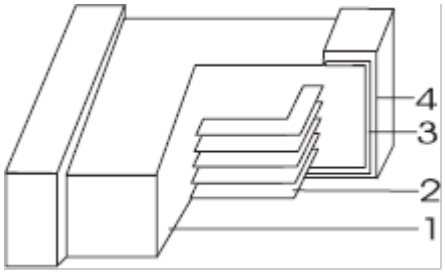
L	W	T	a1, a2
1.60±0.15	0.80±0.15	0.80±0.15	0.30±0.20

Part Identification

AIML-0603HC-□□-□

Inductance Code	Tolerance	Packaging
Please refer to the table above	M: ±20%	T: Tape and Reel (4kpcs / reel)

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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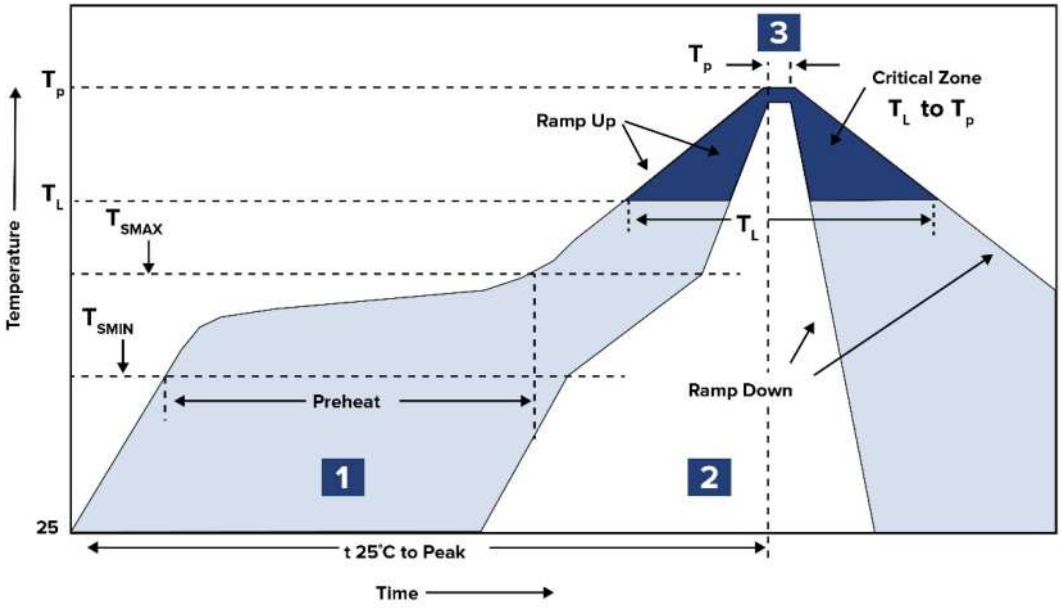


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Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	T_{SMIN} ~ T_{SMAX} 150°C ~ 200°C	60 ~ 180 sec.
2	Reflow	T_L 217°C	60 ~ 150 sec.
3	Peak heat	T_P 260°C±5°C	3~4 sec. MAX

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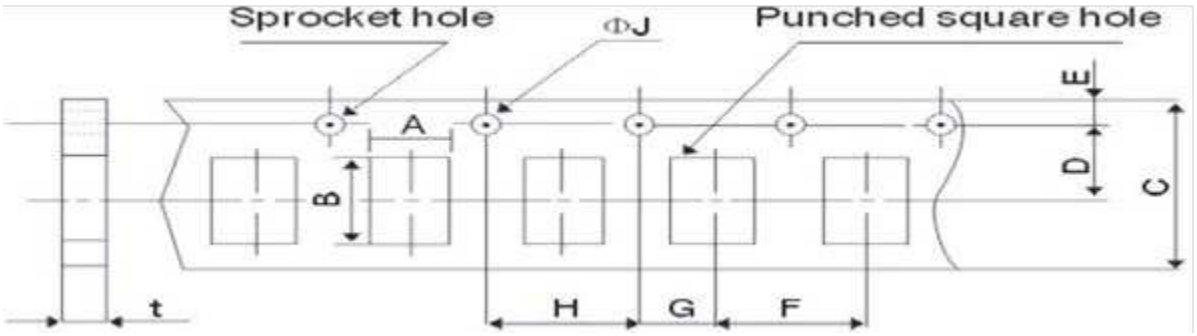
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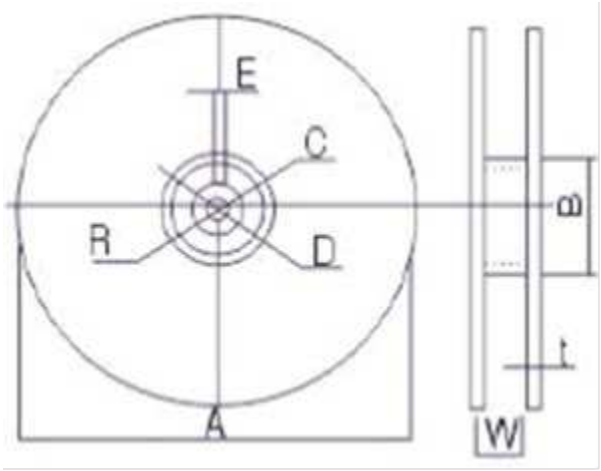
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Packaging

T: 4,000pcs/Reel



A	B	C	D	E	F	G	H	ΦJ	t(max)
1.05±0.15	1.9±0.15	8.0±0.3	3.5±0.05	1.75±0.1	4.0±0.1	2.0±0.05	4.0±0.1	1.5+0.1/-0	1.0±0.05



A	178±2
B	60±2
C	13.0±0.5
D	21.0±0.8
E	2.0±0.5
W	10.0±1.15
t	1.2±0.2
R	1.0±0.25

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