MULTILAYER FERRITE CHIP INDUCTOR



1.6 x 0.8 x 0.8mm

AIML-0603

RoHS Compliant

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 circuit, traps and filter circuits
- RF choke for cordless phones and radio equipment
- Communications, video and audio equipment, computer and remote Control.

STANDARD SPECIFICATIONS:

PARAMETERS	
ABRACON P/N:	AIML-0603-xxx
Operating temperature:	-55°C to + 125°C
Storage temperature:	-55°C to + 125°C

Part No.	L(µH)	Tolerance (%)	Q (min)	Test Freq. (MHz)	SRF(MHz) (min)	DCR(Ω) (max)	Ir(mA) (max)
AIML-0603-47N	0.047	J, K	15	50	600	0.20	50
AIML-0603-56N	0.056	J, K	15	50	550	0.30	50
AIML-0603-68N	0.068	J, K	15	50	500	0.30	50
AIML-0603-82N	0.082	J, K	15	50	450	0.30	50
AIML-0603-R10	0.100	J, K	15	25	400	0.50	50
AIML-0603-R12	0.120	J, K	15	25	350	0.50	50
AIML-0603-R15	0.150	J, K	15	25	300	0.60	50
AIML-0603-R18	0.180	J, K	15	25	280	0.60	50
AIML-0603-R22	0.220	J, K	15	25	260	0.80	50
AIML-0603-R27	0.270	J, K	15	25	255	0.80	50
AIML-0603-R33	0.330	J, K	15	25	250	0.85	35
AIML-0603-R39	0.390	J, K	15	25	245	1.00	35
AIML-0603-R47	0.470	J, K	15	25	240	1.35	35
AIML-0603-R56	0.560	J, K	15	25	205	1.55	35
AIML-0603-R68	0.680	J, K	15	25	180	1.70	35
AIML-0603-R82	0.820	J, K	15	25	165	2.10	35
AIML-0603-1R0	1.000	J, K	35	10	125	0.60	25
AIML-0603-1R2	1.200	J, K	35	10	110	0.80	25
AIML-0603-1R5	1.500	J, K	35	10	105	0.80	25
AIML-0603-1R8	1.800	J, K	35	10	95	0.95	25
AIML-0603-2R2	2.200	J, K	35	10	90	1.15	15
AIML-0603-2R7	2.700	J, K	35	10	80	1.35	15
AIML-0603-3R3	3.300	J, K	35	10	70	1.55	15
AIML-0603-3R9	3.900	J, K	35	10	60	1.70	15
AIML-0603-4R7	4.700	J, K	35	10	50	2.10	15
AIML-0603-5R6	5.600	J, K	35	4	45	1.55	5
AIML-0603-6R8	6.800	J, K	35	4	40	1.70	5
AIML-0603-8R2	8.200	J, K	35	4	35	2.10	4
AIML-0603-100	10.000	J, K	35	2	33	2.55	3
AIML-0603-120	12.000	J, K	35	2	22	2.75	3
AIML-0603-150	15.000	J, K	20	1	20	1.70	1
AIML-0603-180	18.000	J, K	20	1	18	1.85	1
AIML-0603-220	22.000	J, K	20	1	15	2.10	1
AIML-0603-270	27.000	J, K	20	1	12	2.75	1

Test Conditions and equipments
L, Q: HP4291 Impedance Analyzer
DCR: HP4263A LCR meter
SRF: HP4291 Impedance analyzer
Ir: HP4291 Impedance Analyzer, DC power HP6632 and Adapter HP16200. ΔL/L (initial) ≥ -5%

Unless otherwise specified
Temperature : Ordinary Temperature (5 to 35ºC)
Humidity : Ordinary Humidity (25 to 85% RH)

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MULTILAYER FERRITE CHIP INDUCTOR

AIML-0603



1.6 x 0.8 x 0.8mm

RoHS Compliant

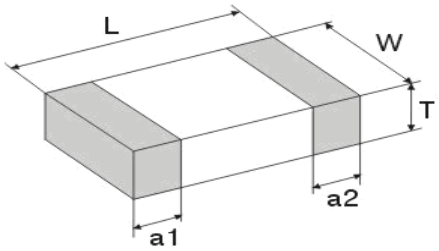
OPTIONS AND PART IDENTIFICATION:

AIML-0603-□□-□

Inductance Code	Tolerance	Packaging
Please refer to the table above	J: ±5% K: ±10%	T: Tape and Reel (4kpcs / reel)

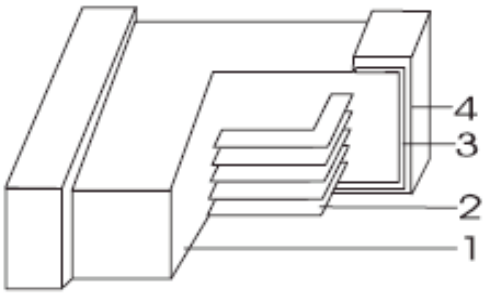
OUTLINE DRAWING:

Dimension: mm [inch]



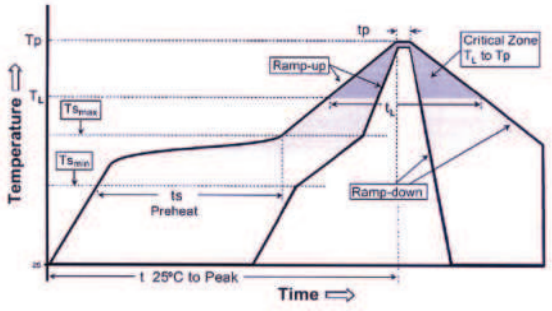
Series	L	W	T	a1,a2
AIML-0603	1.60±0.15	0.80±0.15	0.80±0.15	0.30±0.20
	[0.063±0.006]	[0.031±0.006]	[0.031±0.006]	[0.012±0.008]

MATERIAL:



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

REFLOW PROFILE:



Profile Feature	Lead-Free Assembly
Average Ramp-Up Rate (Tsmax to Tp)	3°C C/second max.
Preheat – Temperature Min (Tsmin) – Temperature Max (Tsmax) – Time (tsmin to tsmax) min to tsmax)	150 °C 200 °C 60-180 seconds
Time maintained above: – Temperature (TL) – Time (tL)	217 °C 60-150 seconds
Peak/Classification Temperature (Tp) Peak/Classification Time (Tp)	260 °C 3-4 seconds
Time within 5 °C of actual Peak Temperature (tp)	20-40 seconds
Ramp-Down Rate	6°C/second max.
Time 25 °C to Peak Temperature	8 minutes max.

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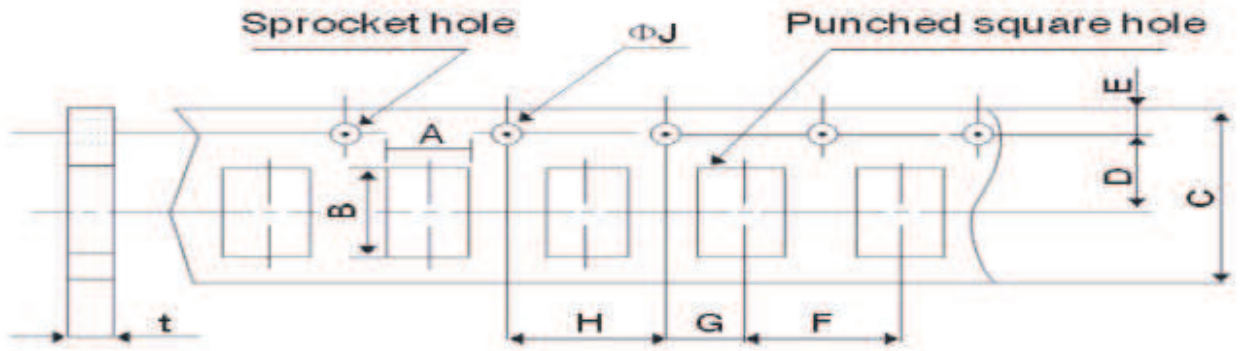
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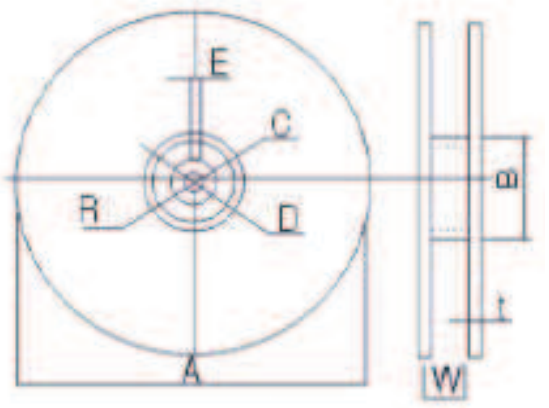
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TAPE & REEL: T: 4,000pcs / reel



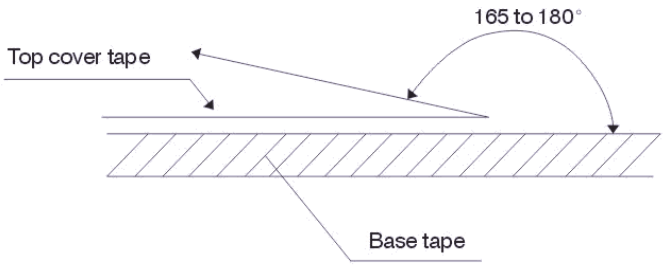
Codes	A	B	C	D	E	F	G	H	ΦJ	t(max)
AIML-0603	1.05±0.10	1.9±0.10	8.0±0.3	3.5±0.05	1.75±0.1	4.0±0.05	2.0±0.05	4.0±0.1	1.5+0.1/-0	1.0±0.05



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

Peeling strength of cover tape

0.3~0.7N (30gf~70gf)



Test condition:
1) peel angle: 165°~180° vs. carrier tape.
2) peel speed: 300 mm/min±10%.

Dimension: mm

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