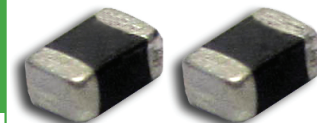


# MULTILAYER FERRITE CHIP INDUCTOR



1.0 x 0.5 x 0.5mm

**AIML-0402**

**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:

Part No.	L( $\mu$ H)	Tolerance	Q (min)	Test Freq.	SRF(MHz)	DCR( $\Omega$ )	Ir(mA)
		(%)		(MHz)	(min)	(max)	(max)
AIML-0402-1R0	1.0	J, K	20	10	40	0.9	15
AIML-0402-1R2	1.2	J, K	20	10	35	1.2	15
AIML-0402-1R5	1.5	J, K	20	10	30	1.2	15
AIML-0402-1R8	1.8	J, K	20	10	30	1.45	15
AIML-0402-2R2	2.2	J, K	20	10	28	1.75	10
AIML-0402-2R7	2.7	J, K	20	10	22	2	10

### 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.  $\Delta L/L$  (initial)  $\geq -5\%$

### Unless otherwise specified

**Temperature :** Ordinary Temperature (5 to 35°C)

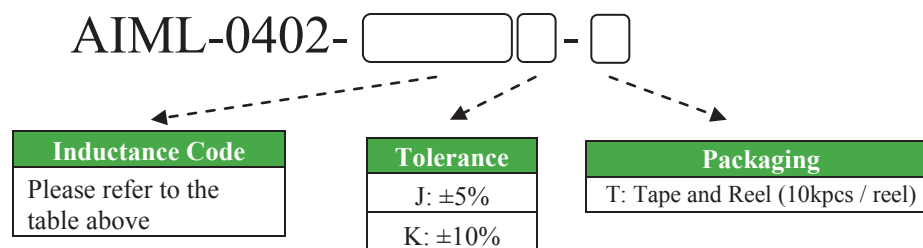
**Humidity :** Ordinary Humidity (25 to 85% RH)

### PARAMETERS

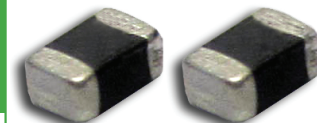
ABRACON P/N:	AIML-0402-xxx
Operating temperature :	-55°C to + 125°C
Storage temperature:	-55°C to + 125°C

## OPTIONS AND PART IDENTIFICATION:

(Left blank if standard)



# MULTILAYER FERRITE CHIP INDUCTOR

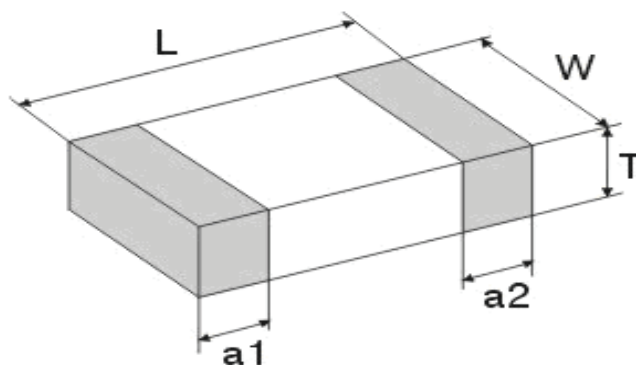


1.0 x 0.5 x 0.5mm

AIML-0402

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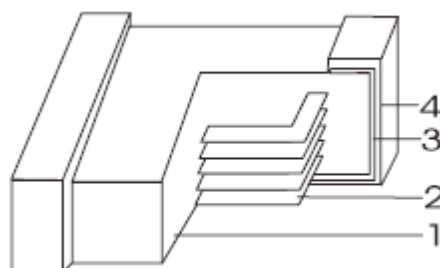
## OUTLINE DRAWING:



Series	L	W	T	a1,a2
AIML-0402	1.00±0.15	0.50±0.15	0.50±0.15	0.25±0.10
	[0.04±0.006]	[0.02±0.006]	[0.02±0.006]	[0.01±0.004]

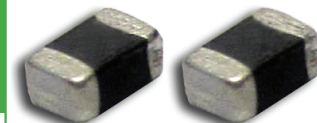
Dimension: mm [inch]

## MATERIALS:



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

# MULTILAYER FERRITE CHIP INDUCTOR

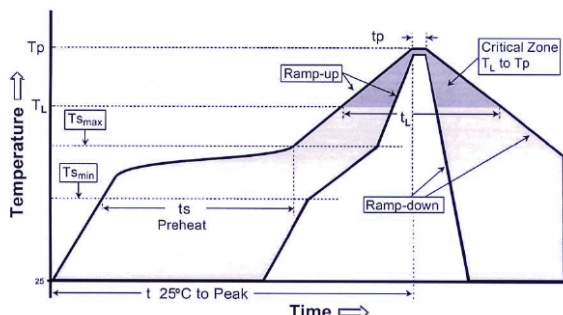


1.0 x 0.5 x 0.5mm

AIML-0402

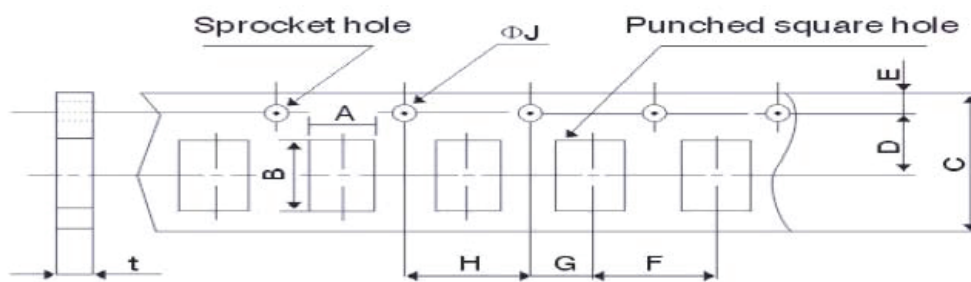
RoHS  
Compliant

## REFLOW PROFILE:

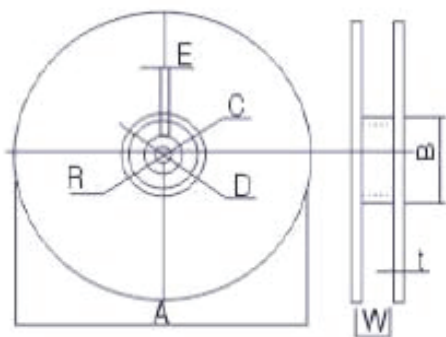


Profile Feature	Lead-Free Assembly
Average Ramp-Up Rate (T <sub>lmax</sub> to T <sub>p</sub> )	3°C/second max.
Preheat - Temperature Min (T <sub>lmin</sub> ) - Temperature Max (T <sub>lmax</sub> ) - Time (t <sub>lmin</sub> to t <sub>lmax</sub> )	150 °C 200 °C 60-180 seconds
Time maintained above: - Temperature (T <sub>l</sub> ) - Time (t <sub>l</sub> )	217 °C 60-150 seconds
Peak-Classification Temperature (T <sub>p</sub> ) Peak-Classification Time (T <sub>p</sub> )	260 °C 3-4 seconds
Time within 5 °C of actual Peak Temperature (t <sub>p</sub> )	20-40 seconds
Ramp-Down Rate	6°C/second max.
Time 25 °C to Peak Temperature	8 minutes max.

## PACKAGING: T: 10,000pcs / reel



Codes	A	B	C	D	E	F	G	H	ΦJ	t(max)
AIML-0402	0.65±0.10	1.15±0.10	8.0±0.3	3.5±0.05	1.75±0.1	2.0±0.05	2.0±0.05	4.0±0.1	1.5+0.1/-0	0.8±0.05



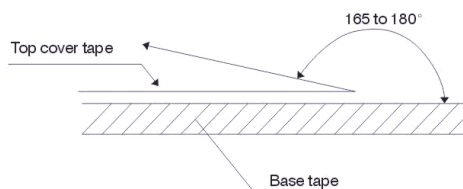
A	178±2
B	60±2
C	13.0±0.5
D	21.0±0.8
E	2.0±0.5
W	10.0±1.15
t	1.2±0.2
R	1.0±0.25

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

**ATTENTION:** Abracon Corporation's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon Corporation is required. Please contact Abracon Corporation for more information.

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