

MULTILAYER FERRITE CHIP INDUCTOR



1.0 x 0.5 x 0.5mm

RoHS
Compliant

AIML-0402

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(μ H) | Tolerance | Q (min) | Test Freq. | SRF(MHz) | DCR(Ω) | Ir(mA) |
|---------------|-------------|-----------|------------|------------|----------|-----------------|--------|
| | | (%) | | (MHz) | (min) | (max) | (max) |
| AIML-0402-1R0 | 1.0 | K, M | 20 | 10 | 40 | 0.90 | 15 |
| AIML-0402-1R2 | 1.2 | K, M | 20 | 10 | 35 | 1.20 | 15 |
| AIML-0402-1R5 | 1.5 | K, M | 20 | 10 | 30 | 1.20 | 15 |
| AIML-0402-1R8 | 1.8 | K, M | 20 | 10 | 30 | 1.45 | 15 |
| AIML-0402-2R2 | 2.2 | K, M | 20 | 10 | 28 | 1.70 | 10 |
| AIML-0402-2R7 | 2.7 | K, M | 20 | 10 | 28 | 2.40 | 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)

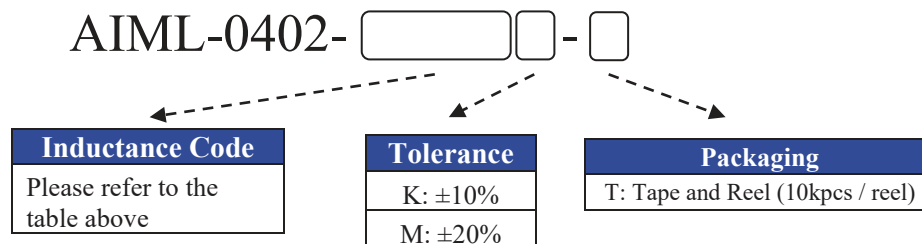
Humidity : Ordinary Humidity (25 to 85% RH)

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)



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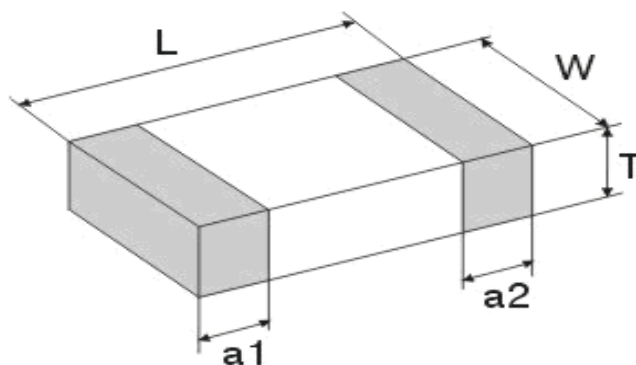


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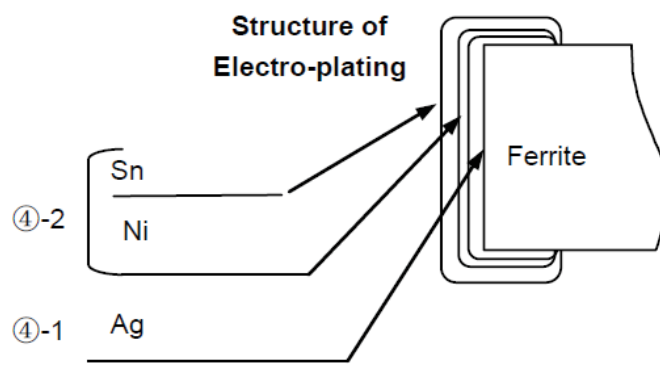
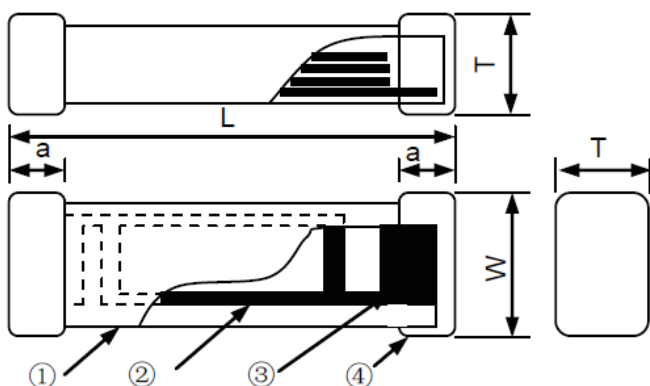
OUTLINE DRAWING:



| Series | L | W | T | a1,a2 |
|-----------|---------------|--------------|--------------|--------------|
| AIML-0402 | 1.00±0.15 | 0.50±0.15 | 0.50±0.15 | 0.25±0.10 |
| | [0.039±0.006] | [0.02±0.006] | [0.02±0.006] | [0.01±0.004] |

Dimension: mm [inch]

MATERIALS:



| # | Part Nme | Material Name |
|-----|--------------------------------|--------------------------------|
| 1 | Ferrite Body | Ferrite Powder |
| 2 | Inner Coils | Silver Paste |
| 3 | Pull-out Electrode (Ag) | Silver Paste |
| 4-1 | Terminal Electrode: Inside Ag | Termination Silver Composition |
| 4-2 | Electro-Plating: Ni/Sn plating | Plating Chemicals |

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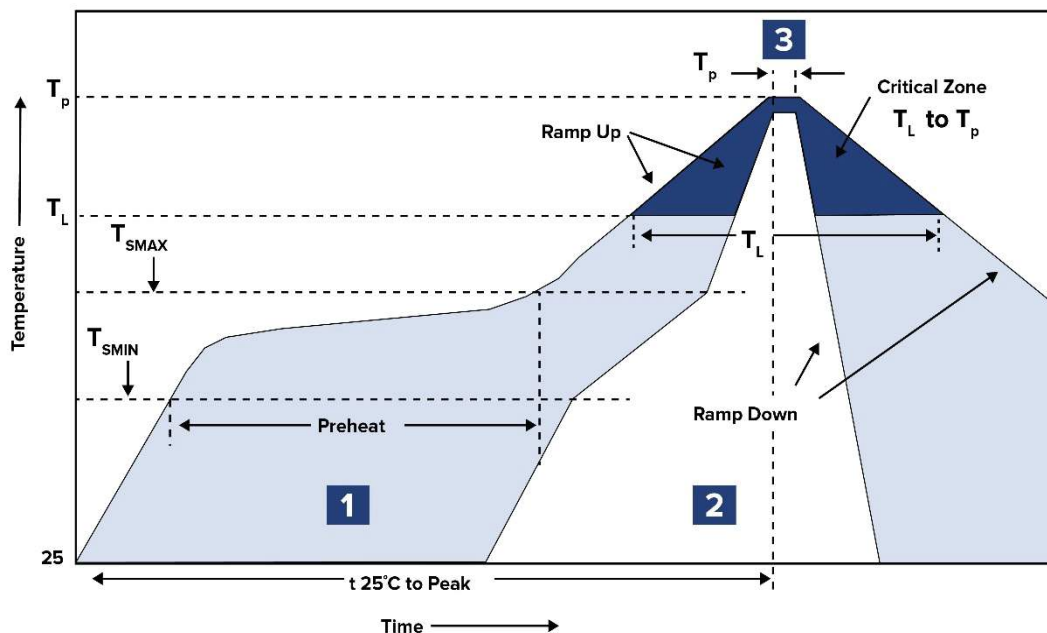


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REFLOW PROFILE:



| Zone | Description | Temperature | Times |
|------|-------------|---|---------------|
| 1 | Preheat | $T_{SMIN} \sim T_{SMAX}$ 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 | 20 ~ 40 sec. |

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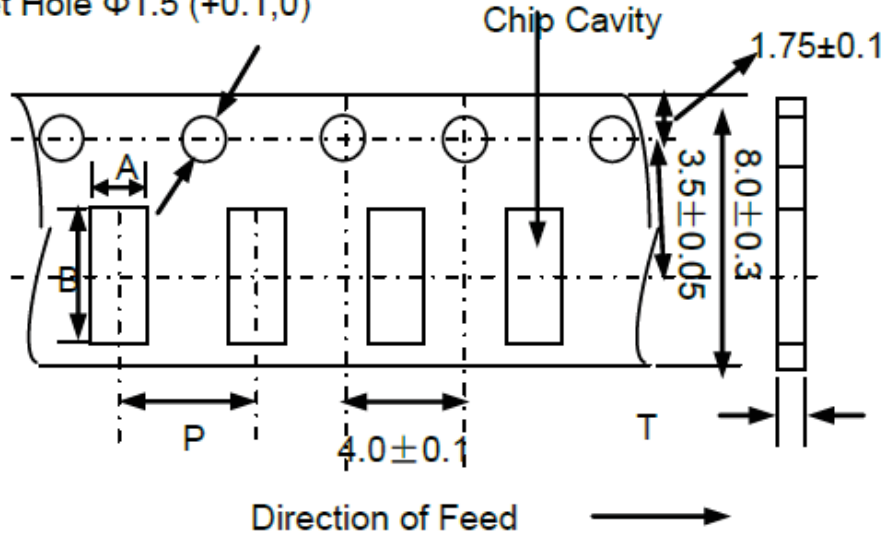
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PACKAGING:

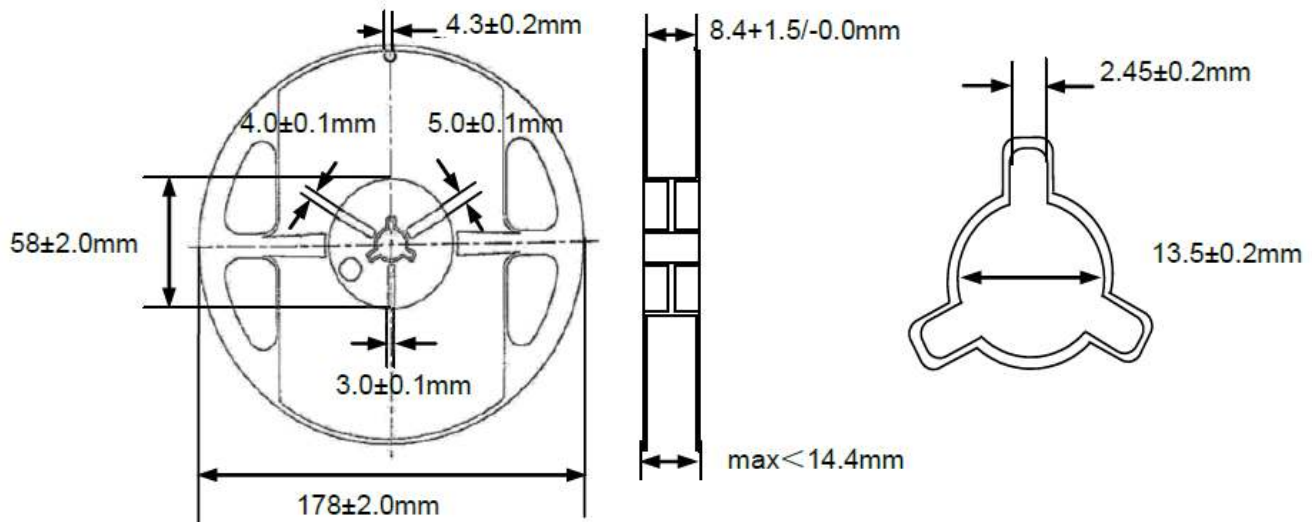
T: 10,000pcs / reel

Sprocket Hole $\Phi 1.5 (+0.1,0)$



| Codes | A | B | P | T(max) |
|-----------|------------|------------|-----------|--------|
| AIML-0402 | 0.65± 0.10 | 1.15± 0.10 | 2.0± 0.05 | 0.80 |

Dimensions: mm



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