

# High Current Multilayer Ferrite Chip Bead



**ACML-0603H-xxx Series**

Request Samples



Check Inventory



1.6 x 0.8 x 0.8 mm  
**RoHS/RoHS II Compliant**  
MSL Level = 1

## Features

- Multilayer monolithic structure yields high reliability
- Unique terminal electrode structure ensures permissible currents
- High impedance over a wide frequency range

## Applications

- Audio & Video Equipment
- Automotive Electrical Equipment
- Communication Equipment
- OA Equipment

## Electrical Specifications

| Part Number    | Z( $\Omega$ )<br>$\pm 25\%$ | Z Test Freq.(MHz) | Rdc ( $\Omega$ )<br>Max. | Ir (mA)<br>Max. |
|----------------|-----------------------------|-------------------|--------------------------|-----------------|
| ACML-0603H-100 | 10                          | 100               | 0.020                    | 3000            |
| ACML-0603H-300 | 30                          | 100               | 0.030                    | 3000            |
| ACML-0603H-600 | 60                          | 100               | 0.040                    | 2500            |
| ACML-0603H-121 | 120                         | 100               | 0.050                    | 2000            |
| ACML-0603H-221 | 220                         | 100               | 0.100                    | 1400            |
| ACML-0603H-331 | 330                         | 100               | 0.140                    | 1200            |
| ACML-0603H-391 | 390                         | 100               | 0.140                    | 1000            |
| ACML-0603H-471 | 470                         | 100               | 0.200                    | 1000            |
| ACML-0603H-601 | 600                         | 100               | 0.350                    | 500             |

### Test Conditions and Equipment

**Ir:** Rated current applied when the chip surface temperature rise just 40°C against chip surface temperature. Electric power supplier, Electric current meter, Thermometer.

**Z:** Impedance Analyzer HP4291 or equivalent, 50mV.

**DCR:** LCR Meter HP4263A or equivalent

## Operating Temperature

-55°C to +125°C

## Storage Temperature

-55°C to +125°C and RH 70% (Max)



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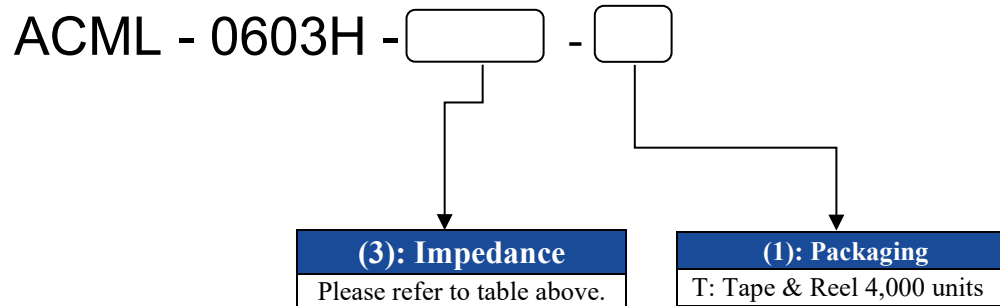


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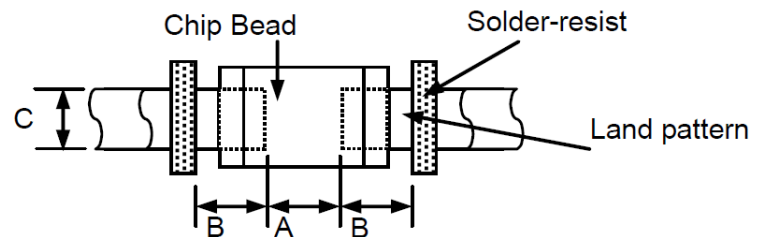
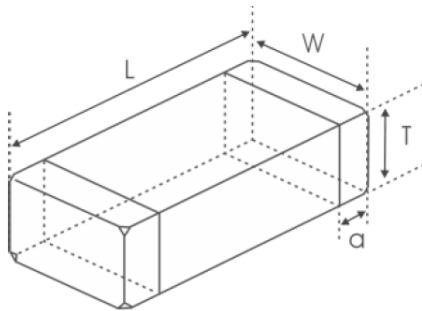


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**RoHS/RoHS II Compliant**  
**MSL Level = 1**

## Part Identification



## Mechanical Specifications



Recommended Layout Pattern

| L        | W        | T        | a       | A           | B           | C           |
|----------|----------|----------|---------|-------------|-------------|-------------|
| 1.6±0.15 | 0.8±0.15 | 0.8±0.15 | 0.3±0.2 | 0.60 ~ 0.80 | 0.60 ~ 0.80 | 0.60 ~ 0.80 |

Dimensions: mm

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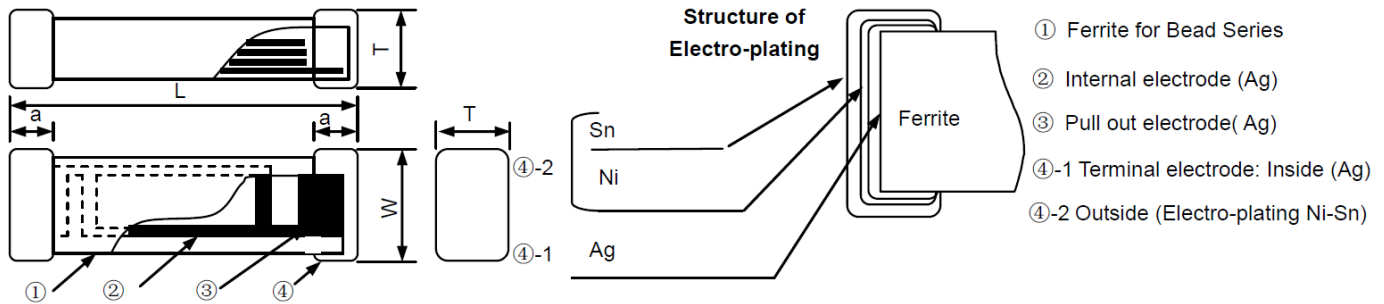


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**RoHS/RoHS II Compliant**  
**MSL Level = 1**

## Materials



| Section | Part Name                      | 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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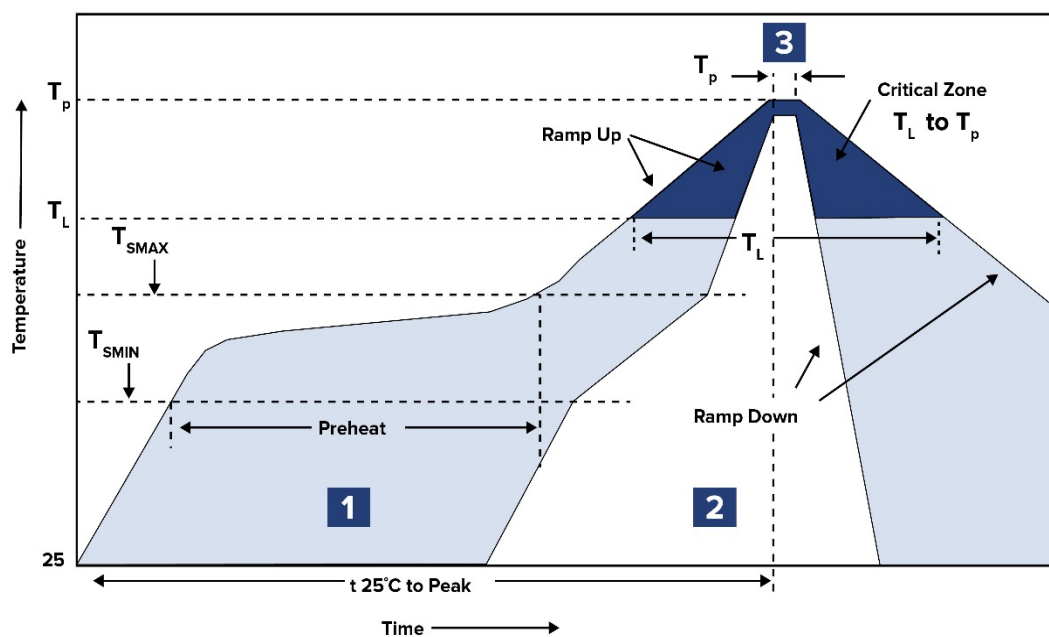
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## Reflow Profile



| Zone | Description | Temperature                               | Times         |
|------|-------------|-------------------------------------------|---------------|
| 1    | Preheat     | $T_{SMIN} \sim T_{SMAX}$<br>150°C ~ 180°C | 60 ~ 120 sec. |
| 2    | Reflow      | $T_L$<br>180°C -230°C                     | 60 ~ 90 sec.  |
| 3    | Peak heat   | $T_P$<br>260°C±5°C                        | 10 sec. MAX   |

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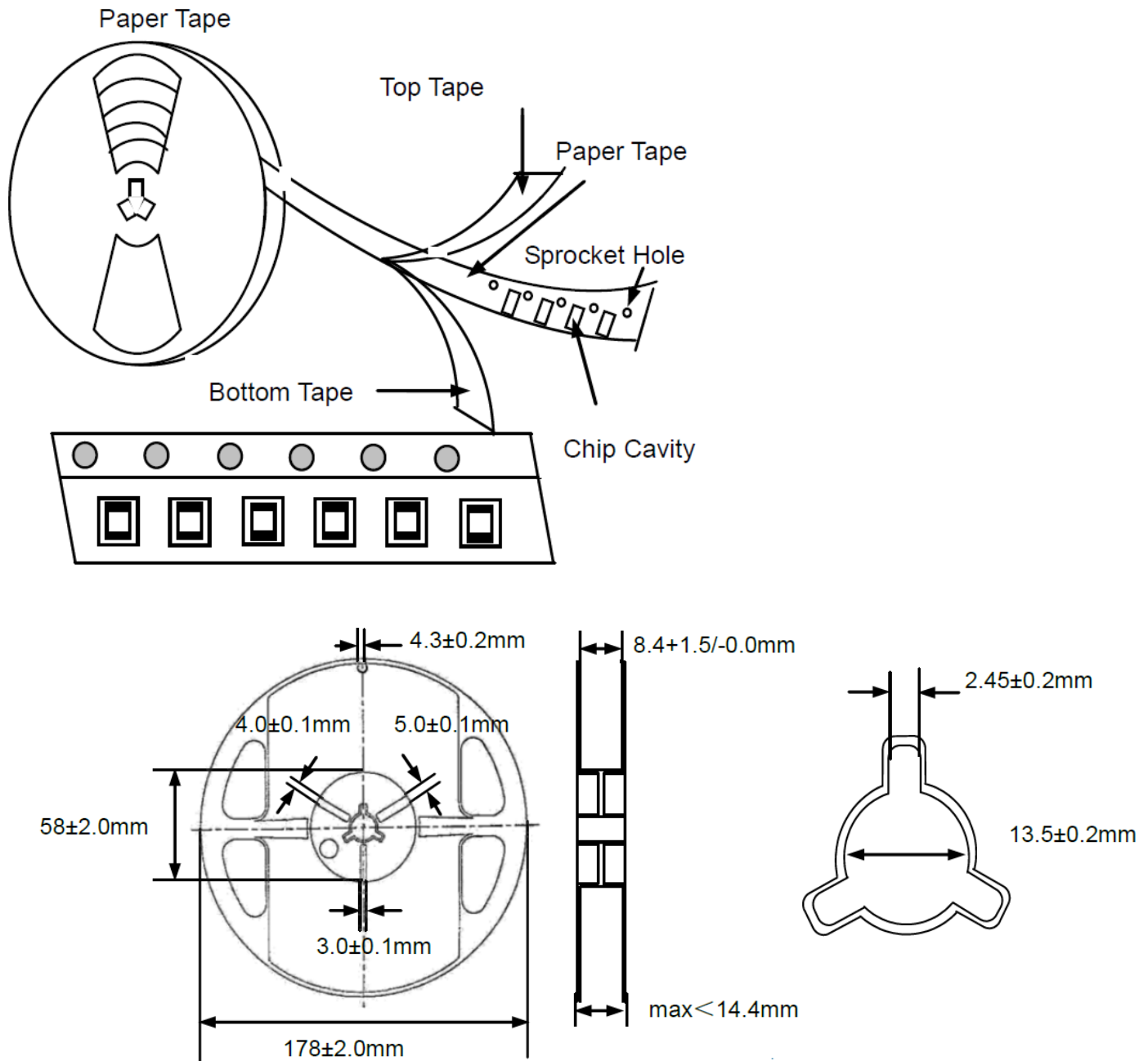
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## Packaging

T=Tape and reel (4,000 pcs/reel)



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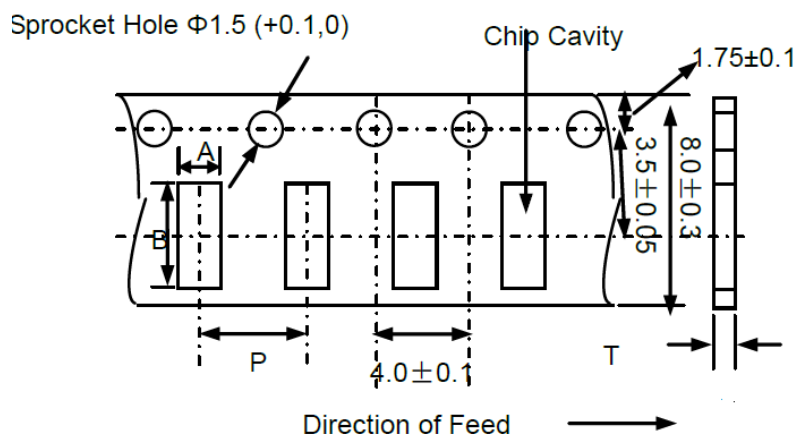


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## Packaging



| A         | B         | P         | Tmax | H  |
|-----------|-----------|-----------|------|----|
| 1.0 ± 0.2 | 1.8 ± 0.2 | 4.0 ± 0.1 | 1.1  | 10 |

Dimensions: mm

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