

# Common Mode Choke Coil

ACM-0603



RoHS/RoHS II Compliant



1.60 x 0.85 x 1.10mm

## FEATURES:

- These low profile design to save PCB space
- Very low DC resistance
- Wide impedance range from 22ohm to 250ohm

## APPLICATIONS:

- Elimination of common mode noise in high-speed, differential mode signal transmission applications such as USB 2.0, IEEE1394 and LVDS.

## STANDARD SPECIFICATIONS

|                       |                                              |
|-----------------------|----------------------------------------------|
| Abrakon P/N:          | ACM-0603                                     |
| Operating Temperature | -40°C to +85°C                               |
| Storage Temperature   | -10°C to +40°C, 70% RH max. in tape and reel |

| Part Number<br>ACM-0603-<br>Impedance Code | Common Mode<br>Impedance<br>@100MHz | DCR             | Rated<br>Current | Rated<br>Voltage | Withstanding<br>Voltage | Insulation<br>Resistance |
|--------------------------------------------|-------------------------------------|-----------------|------------------|------------------|-------------------------|--------------------------|
| Units                                      | $\Omega \pm 25\%$                   | $\Omega$ (max.) | mA               | Vdc              | Vdc                     | M $\Omega$ (min.)        |
| ACM-0603-220                               | 22                                  | 0.080           | 500              | 50               | 125                     | 10                       |
| ACM-0603-450                               | 45                                  | 0.110           | 500              | 50               | 125                     | 10                       |
| ACM-0603-900                               | 90                                  | 0.145           | 500              | 50               | 125                     | 10                       |
| ACM-0603-121                               | 120                                 | 0.175           | 500              | 50               | 125                     | 10                       |
| ACM-0603-181                               | 180                                 | 0.210           | 500              | 50               | 125                     | 10                       |
| ACM-0603-251                               | 250                                 | 0.280           | 400              | 50               | 125                     | 10                       |

## Test Conditions

1. Inductance is measured in HP4287A at frequency of 100MHz
2. Rated Current: For 15°C rise in temperature

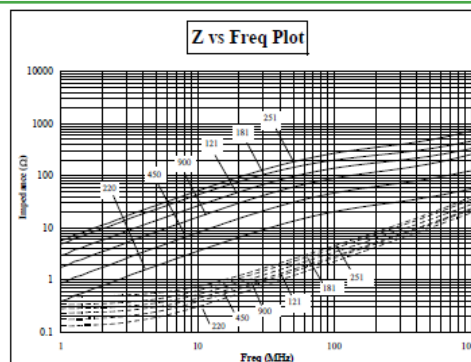
## PART IDENTIFICATION:

ACM-0603-  -

Impedance Code  
Please refer to the Table

Packaging  
T: 2kpcs/reel

## ELECTRICAL CHARACTERISTIC CURVES



Solid Line: Common Mode  
Dotted Line: Differential Mode

ABRACON IS  
ISO 9001:2008  
CERTIFIED



Visit [www.abracon.com](http://www.abracon.com) for Terms & Conditions of Sale  
30332 Esperanza, Rancho Santa Margarita, California 92688  
tel 949-546-8000 | fax 949-546-8001 | [www.abracon.com](http://www.abracon.com)

Revised: 10.14.13

# Common Mode Choke Coil

ACM-0603



RoHS/RoHS II Compliant

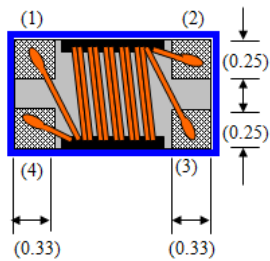
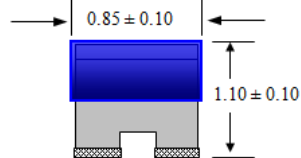
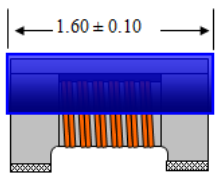


1.60 x 0.85 x 1.10mm

## TEST CIRCUIT:

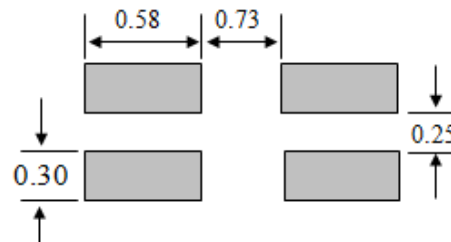
| Parameter             | Terminal to be tested |
|-----------------------|-----------------------|
| Common Mode Impedance |                       |
| Withstanding Voltage  |                       |
| DC Resistance         |                       |
| Rated Current         |                       |
| Insulation Resistance |                       |

## OUTLINE DIMENSIONS:

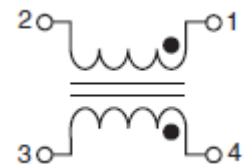


Remark : : Electrode  
( ) : Reference Value

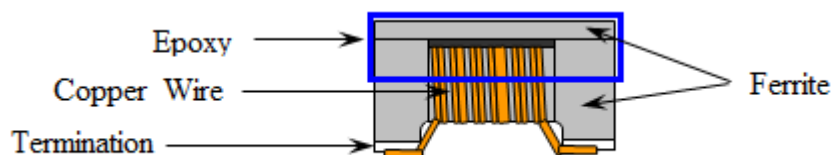
## Recommended Land Pattern



## Schematic



## Material Structure



Termination: Ag followed by Nickel, then gold plating.

# Common Mode Choke Coil

ACM-0603

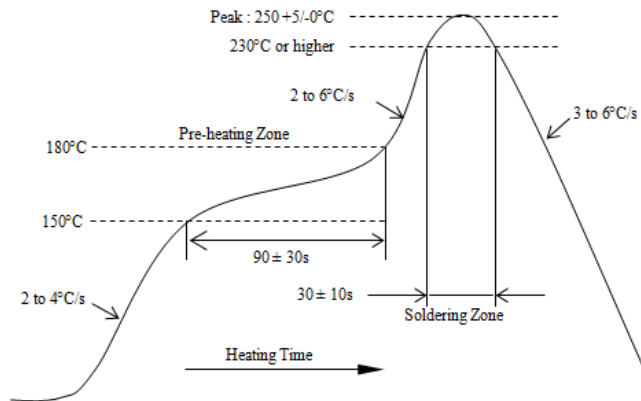


RoHS/RoHS II Compliant



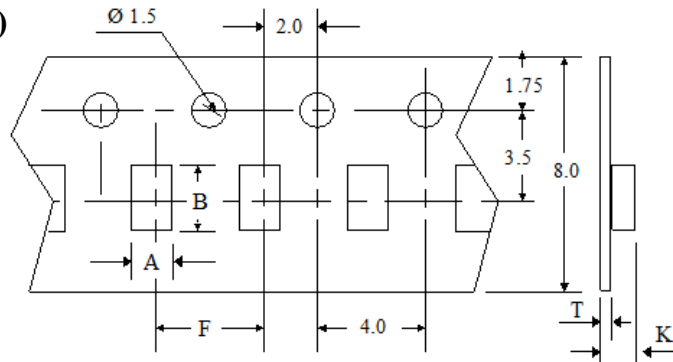
1.60 x 0.85 x 1.10mm

## REFLOW PROFILE:

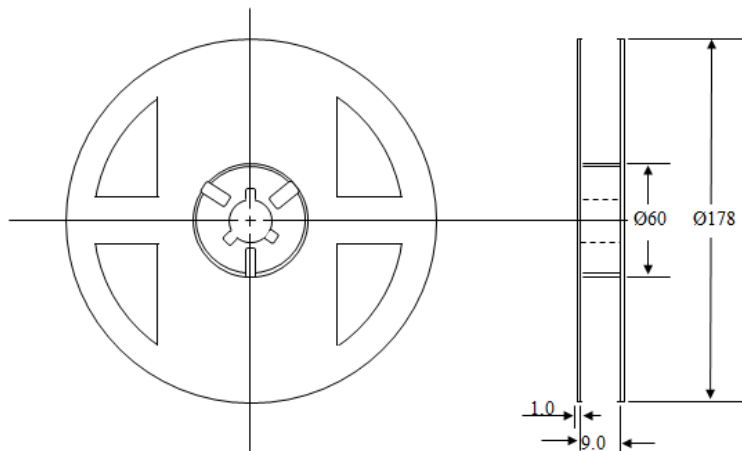


## TAPE & REEL:

T= tape and reel (2,000pcs/reel)



| A         | B         | F         | K         | T         |
|-----------|-----------|-----------|-----------|-----------|
| 1.05±0.10 | 1.85±0.10 | 4.00±0.10 | 1.15±0.10 | 0.23±0.10 |



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.

ABRACON IS  
ISO 9001:2008  
CERTIFIED



Visit [www.abracon.com](http://www.abracon.com) for Terms & Conditions of Sale  
30332 Esperanza, Rancho Santa Margarita, California 92688  
tel 949-546-8000 | fax 949-546-8001 | [www.abracon.com](http://www.abracon.com)

Revised: 10.14.13