



# CM0090Q0504DT COMMON MODE FILTER SPECIFICATION

Rev. A

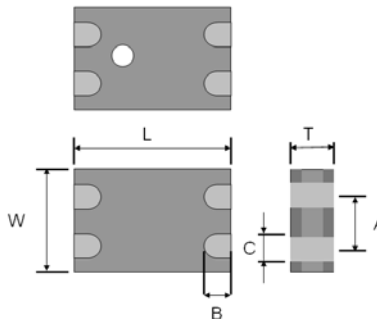
## PRODUCT FEATURES

1. Surface mount common mode filter with a small size of 1.25 X 1.00 X 0.80 mm, RoHS compliant.
2. Provide wide pass band and high attenuation for common mode noise.
3. Highly stable under temperature and humidity changes.

## RF CHARACTERISTICS

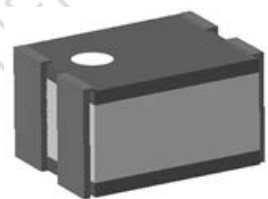
| P/N CM0090Q0504DT                       | Specification              |
|-----------------------------------------|----------------------------|
| Common Mode Impedance                   | 90 ohms $\pm$ 20% @ 100MHz |
| DC Resistance                           | 1.5 $\Omega$ max.          |
| Rated Current                           | 300 mA                     |
| Characteristic Impedance (Differential) | 90 $\Omega$ (Typical)      |
| Operating temperature range             | -40°C to +85°C             |

## PHYSICAL DIMENSIONS



| Symbol | Dimension (mm)  |
|--------|-----------------|
| L      | 1.25 $\pm$ 0.10 |
| W      | 1.00 $\pm$ 0.10 |
| T      | 0.80 $\pm$ 0.10 |
| A      | 0.55 $\pm$ 0.10 |
| B      | 0.20 $\pm$ 0.15 |
| C      | 0.30 $\pm$ 0.10 |

## TERMINAL CONFIGURATION

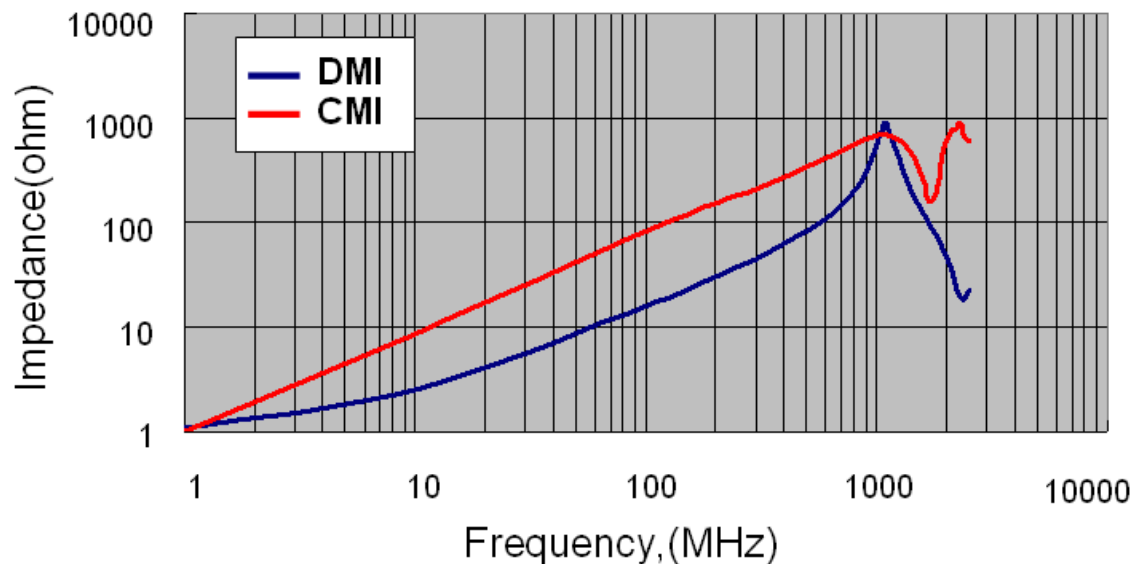


## PCB DESIGN/LAYOUT CONSIDERATION

| Figure                                          | Symbol | Dimension (mm)  |
|-------------------------------------------------|--------|-----------------|
|                                                 | L1     | 1.75 $\pm$ 0.05 |
|                                                 | L2     | 0.30 $\pm$ 0.10 |
|                                                 | L3     | 0.75 $\pm$ 0.05 |
|                                                 | L4     | 0.55 $\pm$ 0.05 |
| Design trace width to be 50 $\Omega$ impedance. |        |                 |



## Typical Impedance vs. Frequency Characteristic:



## Typical Insertion Loss vs Frequency Characteristic:

