

## Common Mode Filters

For ultra high-speed differential signal line  
(Thunderbolt, SerialATA, USB3.0, etc.)

TCM series

Type:            TCM0806T    [0302 inch]\*  
   \* Dimensions Code [EIA]

Issue date:     August 2012

- All specifications are subject to change without notice.
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

# Common Mode Filters

## For Ultra High-speed Differential Signal Line (Thunderbolt, SerialATA, USB3.0, etc.)

Conformity to RoHS Directive

### TCM Series TCM0806T

#### FEATURES

- Thin-film common mode filter with a wide bandwidth for high-speed differential signal interfaces such as Thunderbolt, SerialATA and USB 3.0 .
- The series suppresses radiation noise due to common mode noise, without affecting the transmission of high-speed differential signals by realizing a higher cutoff frequency.
- This product contains no lead and supports lead-free soldering.

#### APPLICATIONS

- High speed interface(Thunderbolt, SerialATA and USB3.0, etc.) in electronics devices.

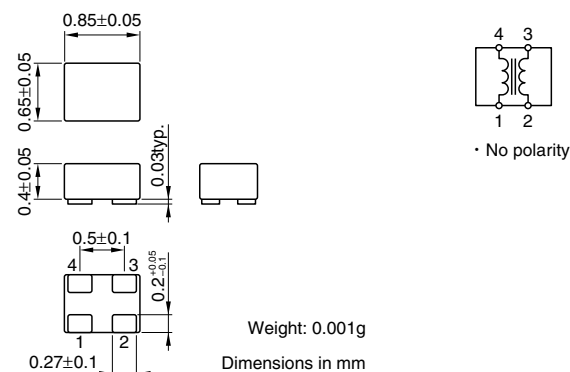
#### TEMPERATURE RANGES

Operating	-25 to +85°C
Storage(After mount)	-25 to +85°C

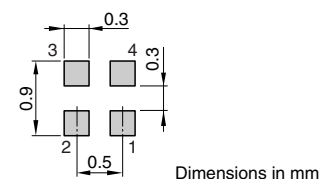
#### PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	10000 pieces/reel

#### SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



#### RECOMMENDED PC BOARD PATTERN

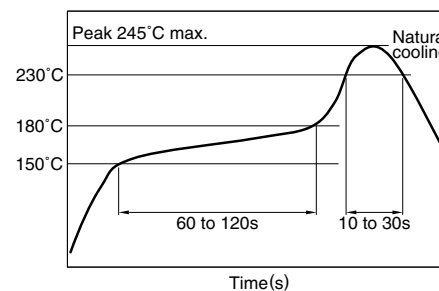


#### PRODUCT IDENTIFICATION

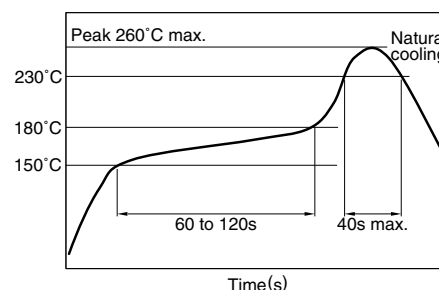
TCM	0806	T	- 060	- 2P	- T
(1)	(2)	(3)	(4)	(5)	(6)

- Series name
- Dimensions L×W
- Product identification number
- Impedance[at 100MHz]  
060: 06Ω
- Number of line  
2P: 2-line
- Packaging style  
T: ø180mm reel taping

#### RECOMMENDED SOLDERING CONDITIONS RECOMMENDED TEMPERATURE PROFILE FOR LEAD-FREE SOLDER



#### REFLOW PROFILE FOR SOLDER HEAT RESISTANCE



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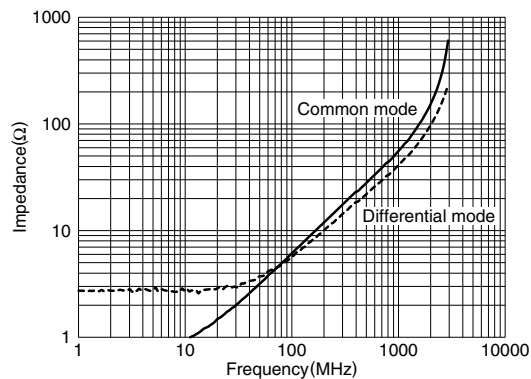
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## ELECTRICAL CHARACTERISTICS

Part No.	Common mode impedance ( $\Omega$ )typ.[at 100MHz]	DC resistance ( $\Omega$ )typ. [1 line]	Cutoff frequency (GHz)typ.	Rated current $I_{dc}$ (A)max.	Rated voltage $E_{dc}$ (V)max.	Insulation resistance (M $\Omega$ )min.
TCM0806T-060-2P	6	1.4	10	0.1	10	10

## TYPICAL ELECTRICAL CHARACTERISTICS

### IMPEDANCE vs. FREQUENCY CHARACTERISTICS



### INSERTION LOSS vs. FREQUENCY CHARACTERISTICS

