Common Mode Filters

For high-speed differential signal line (USB2.0, LVDS, etc.)

TCM series

Type:	**TCM0605G**	**[0202 inch]***
	TCM0806G	**[0302 inch]**
	TCM1608G	**[0603 inch]**

*** Dimensions Code [EIA]**

Issue date: April 2013

- 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.

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TDK

Common Mode Filters For High-speed Differential Signal Line (USB2.0, LVDS, etc.)

Conformity to RoHS Directive

TCM Series TCM0605G

FEATURES

- Smallest thin-film common mode filter in the industry at L0.65×W0.5×T0.3mm.
- Effectively suppresses radiated noise due to common mode noise without affecting the transmission of high-speed differential signals.
- This product contains no lead and supports lead-free soldering.

APPLICATIONS

- High speed interface(USB2.0, MIPI, LVDS, IEEE1394 and HDMI, etc.) in electronics devices.
- Portable audio, digital cellular phones, DVC, DSC, notebook PCs, PDP/LCD/DLP/PJ TVs, DVD players, amusement machines, etc.

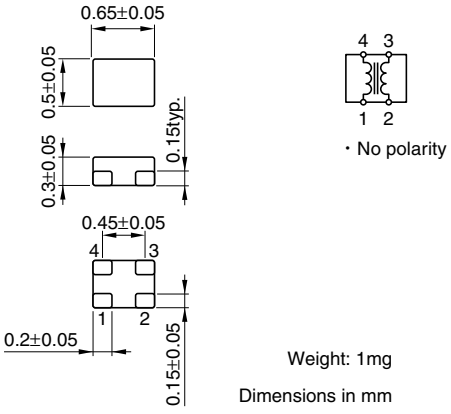
TEMPERATURE RANGES

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

PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	10000 pieces/reel

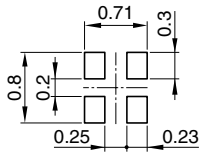
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



Weight: 1mg

Dimensions in mm

RECOMMENDED PC BOARD PATTERN



Dimensions in mm

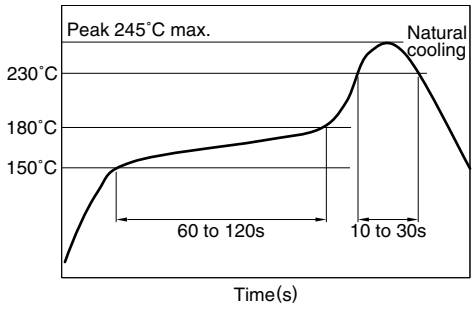
PRODUCT IDENTIFICATION

TCM	0605	G	-	900	-	2P	-	T
(1)	(2)	(3)		(4)		(5)		(6)

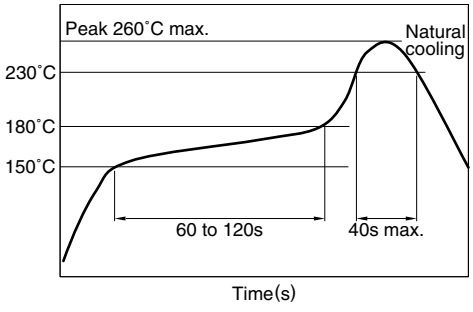
(1) Series name
(2) Dimensions L×W
(3) Product identification number
(4) Impedance[at 100MHz]
900: 90Ω
(5) Number of line
2P: 2-line
(6) Packaging style
T: ø180mm reel taping

RECOMMENDED SOLDERING CONDITIONS

RECOMMENDED TEMPERATURE PROFILE FOR LEAD-FREE SOLDER



REFLOW PROFILE FOR SOLDER HEAT RESISTANCE



- 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.

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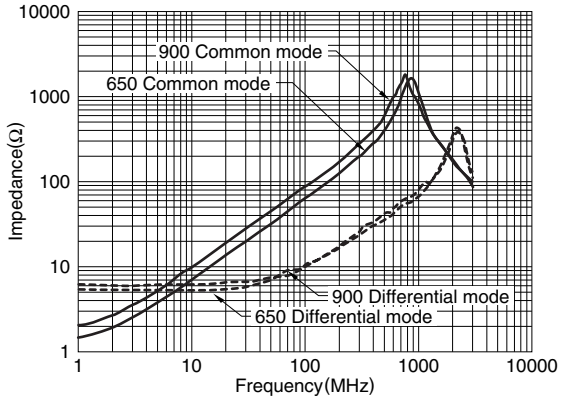
ELECTRICAL CHARACTERISTICS

Part No.	Common mode impedance (Ω) [100MHz]	DC resistance (Ω)[1 line]	Rated current Idc(A)max.	Rated voltage Edc(V)max.	Insulation resistance (MΩ)min.
TCM0605G-900-2P	90±20%	3±30%	0.1	10	10
TCM0605G-650-2P	65±20%	2.7±30%	0.1	10	10

TYPICAL ELECTRICAL CHARACTERISTICS

IMPEDANCE vs. FREQUENCY CHARACTERISTICS



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Common Mode Filters
For High-speed Differential Signal Line
(USB2.0, LVDS, etc.)

Conformity to RoHS Directive

TCM Series TCM0806G

FEATURES

- The TCM0806G (L0.85×W0.65×T0.4mm) is a compact thin-film common mode filter.
- By providing wide bandwidth (cutoff frequency: 3GHz) for differential mode, this product has almost no effect for high-speed differential signals and can suppress the radiated emission.
- This product contains no lead and supports lead-free soldering.

APPLICATIONS

- High speed interface(LVDS, IEEE1394 and USB2.0) in electronics devices.
- Portable audio, digital cellular phones, DVC, DSC, PDP/LCD/DLP/PJ TVs, DVD players, notebook PCs, amusement machines, etc.

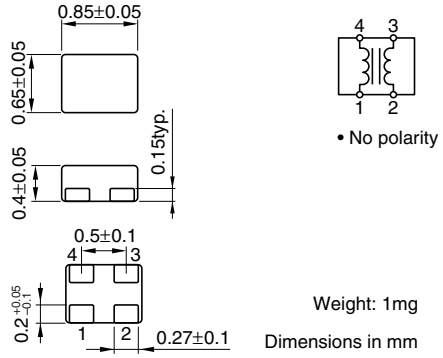
TEMPERATURE RANGES

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

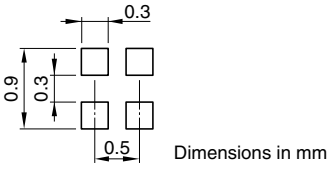
PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	10000 pieces/reel

SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



RECOMMENDED PC BOARD PATTERN

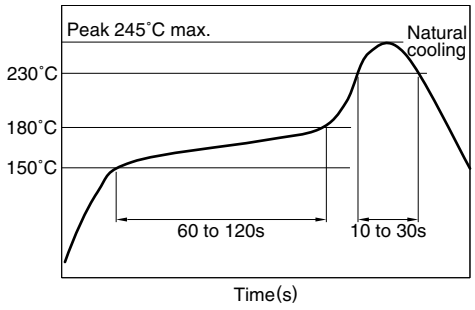


PRODUCT IDENTIFICATION

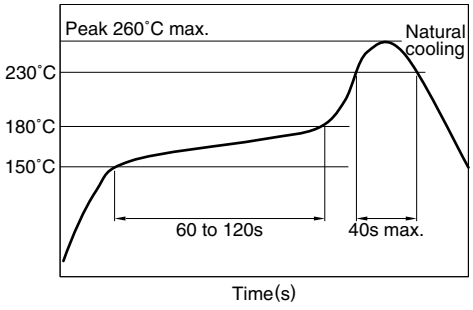
TCM	0806	G	-	900	-	2P	-	T
(1)	(2)	(3)		(4)		(5)		(6)

(1) Series name
(2) Dimensions L×W
(3) Product identification number
(4) Impedance[at 100MHz]
900: 90Ω
(5) Number of line
2P: 2-line
(6) Packaging style
T: ø180mm reel taping

RECOMMENDED SOLDERING CONDITIONS
RECOMMENDED TEMPERATURE PROFILE FOR LEAD-FREE SOLDER



REFLOW PROFILE FOR SOLDER HEAT RESISTANCE



- 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.

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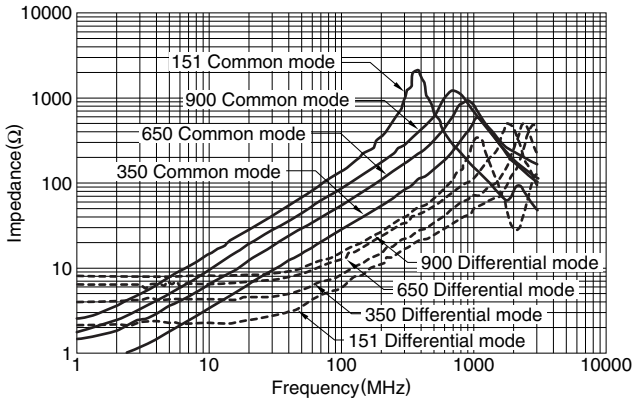
ELECTRICAL CHARACTERISTICS

Part No.	Common mode impedance (Ω) [100MHz]	DC resistance (Ω)[1 line]	Rated current Idc(A)max.	Rated voltage Edc(V)max.	Insulation resistance (MΩ)min.
TCM0806G-350-2P	35±30%	1.15±30%	0.10	10	10
TCM0806G-650-2P	65±20%	2.50±30%	0.10	10	10
TCM0806G-900-2P	90±20%	2.70±30%	0.10	10	10
TCM0806G-151-2P	150±20%	4.00±30%	0.10	10	10

TYPICAL ELECTRICAL CHARACTERISTICS

IMPEDANCE vs. FREQUENCY CHARACTERISTICS



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Common Mode Filters
For High-speed Differential Signal Line
(USB2.0, LVDS, etc.)

Conformity to RoHS Directive

TCM Series TCM1608G

FEATURES

- The TCM1608G (L1.6×W0.8×T0.4mm) is a dual-circuit modularized thin-film common mode filter array.
- By providing wide bandwidth (cutoff frequency: 3GHz) for differential mode, this product has almost no effect for high-speed differential signals and can suppress the radiated emission.
- This product contains no lead and supports lead-free soldering.

APPLICATIONS

- High speed interface(LVDS, IEEE1394 and USB2.0) in electronics devices.
- PDP/LCD/DLP/PJ TVs, DVD players, notebook PCs, DVC, DSC, amusement machines, portable audio, digital cellular phones, etc.

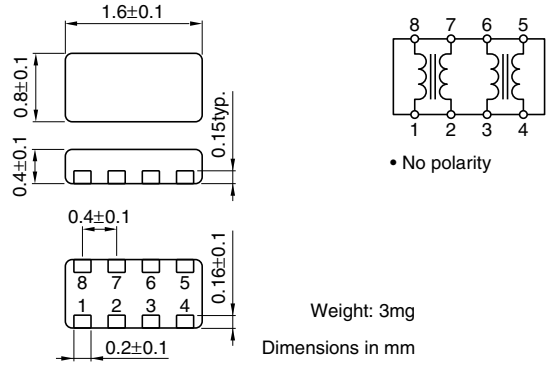
TEMPERATURE RANGES

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

PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	4000 pieces/reel

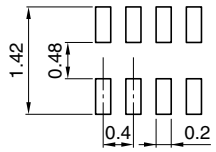
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAMS



Weight: 3mg

Dimensions in mm

RECOMMENDED PC BOARD PATTERNS



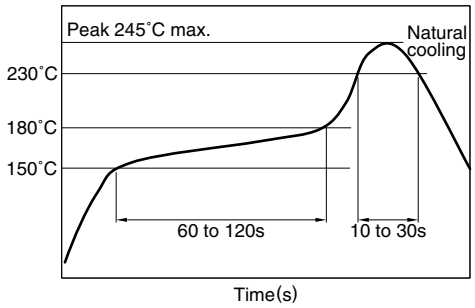
Dimensions in mm

PRODUCT IDENTIFICATION

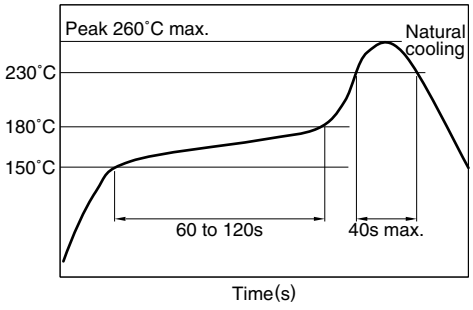
TCM	1608	G	-	201	-	4P	-	T
(1)	(2)	(3)		(4)		(5)		(6)

(1) Series name
(2) Dimensions L×W
(3) Product identification number
(4) Impedance[at 100MHz]
201: 200Ω
(5) Number of line
4P: 4-line
(6) 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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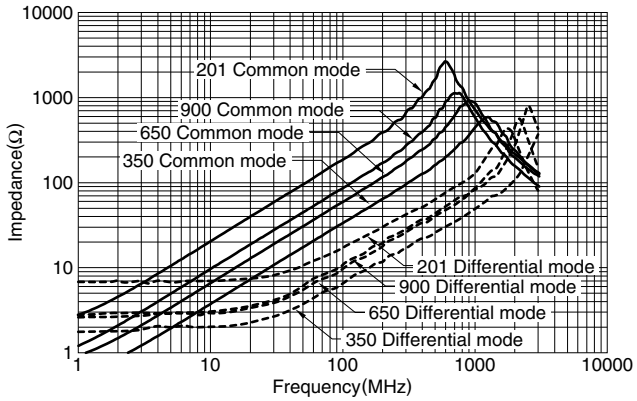
ELECTRICAL CHARACTERISTICS

Part No.	Common mode impedance (Ω) [100MHz]	DC resistance (Ω)[1 line]	Rated current Idc(A)max.	Rated voltage Edc(V)max.	Insulation resistance (MΩ)min.
TCM1608G-350-4P	35±30%	0.85±30%	0.10	5	10
TCM1608G-650-4P	65±20%	1.30±30%	0.10	5	10
TCM1608G-900-4P	90±20%	1.50±30%	0.10	5	10
TCM1608G-201-4P	200±20%	4.00±30%	0.05	5	10

TYPICAL ELECTRICAL CHARACTERISTICS

IMPEDANCE vs. FREQUENCY CHARACTERISTICS



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