



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Common Mode Filters

For ultra high-speed differential signal line
(HDMI, DVI, DisplayPort, USB3.0, etc.)

TCM series

Type:	TCM0403S	[0201 inch]*
	TCM0605S	[0202 inch]
	TCM0806S	[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 (HDMI, DVI, DisplayPort, USB3.0, etc.)

Conformity to RoHS Directive

TCM Series TCM0403S

FEATURES

- Smallest size in the industry at L0.45×W0.30×T0.23mm.
- Thin-film common mode filter with a large bandwidth for high-speed differential signal interfaces such as USB 3.0 and DisplayPort.
- 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(HDMI, DVI, DisplayPort, USB3.0 and Serial ATA, etc.) in electronics devices.
- Smartphones, digital cellular phones, tablet PCs, notebook PCs, PDP/LCD/DLP/PJ TVs, portable audio, DVC, DSC, DVD players, amusement machines, etc.

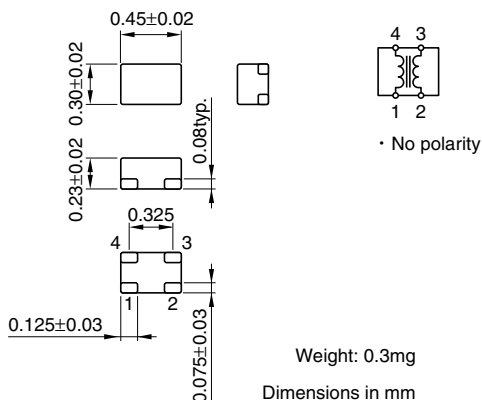
TEMPERATURE RANGES

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

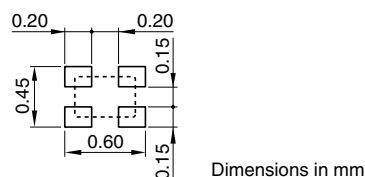
PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	10000 pieces/reel

SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



RECOMMENDED PC BOARD PATTERN



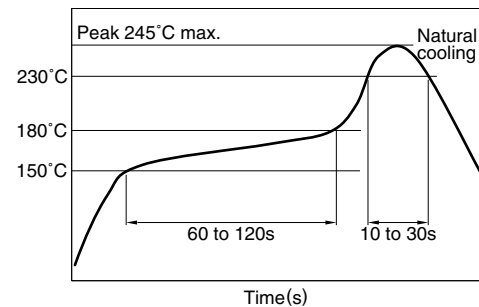
PRODUCT IDENTIFICATION

TCM	0403	S	- 350	- 2P	- T
(1)	(2)	(3)	(4)	(5)	(6)

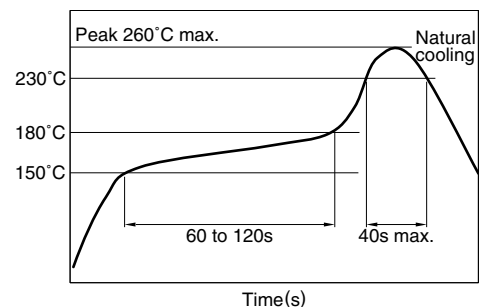
- (1) Series name
- (2) Dimensions L×W
- (3) Product identification number
- (4) Impedance[at 100MHz]
350: 35Ω
- (5) Number of line
2P: 2-line
- (6) Packaging style
T: ø180mm reel taping

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.

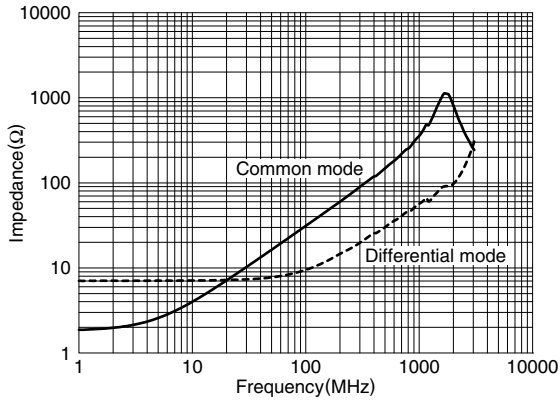
• All specifications are subject to change without notice.

ELECTRICAL CHARACTERISTICS

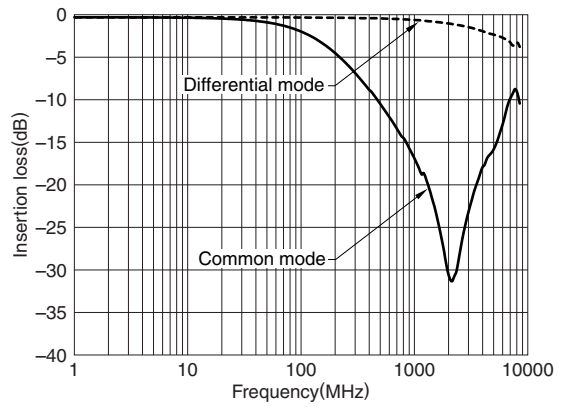
Part No.	Common mode impedance (Ω)[at 100MHz]	DC resistance (Ω) [1 line]	Cutoff frequency (GHz)typ.	Rated current Idc (A)max.	Rated voltage Edc (V)max.	Insulation resistance (MΩ)min.
TCM0403S-350-2P	35±12	3.0±30%	7.0	0.05	5	10

TYPICAL ELECTRICAL CHARACTERISTICS

IMPEDANCE vs. FREQUENCY CHARACTERISTICS



INSERTION LOSS vs. FREQUENCY CHARACTERISTICS



Common Mode Filters

For Ultra High-speed Differential Signal Line (HDMI, DVI, DisplayPort, USB3.0, etc.)

Conformity to RoHS Directive

TCM Series TCM0605S

FEATURES

- Thin-film common mode filter with a large bandwidth for high-speed differential signal interfaces such as USB 3.0 and DisplayPort.
- 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(HDMI, DVI, DisplayPort, USB3.0 and Serial ATA, etc.) in electronics devices.
- Notebook PCs, PDP/LCD/DLP/PJ TVs, portable audio, digital cellular phones, DVC, DSC, DVD players, amusement machines, etc.

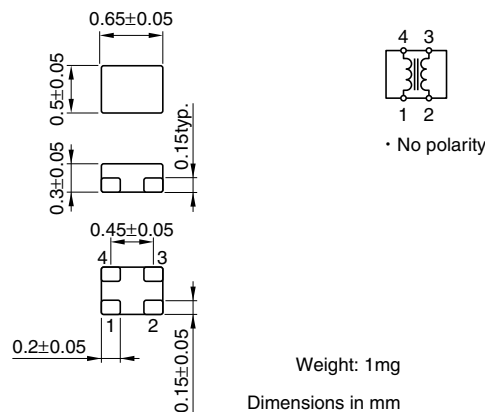
TEMPERATURE RANGES

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

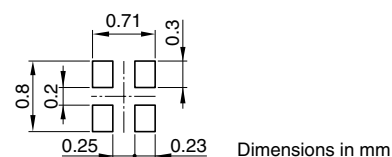
PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	10000 pieces/reel

SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



RECOMMENDED PC BOARD PATTERN



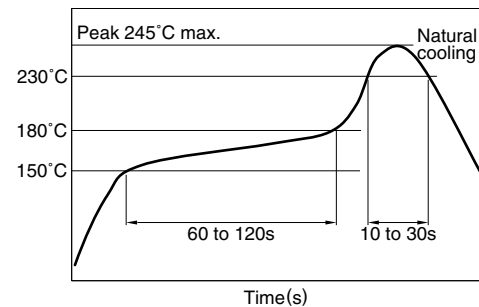
PRODUCT IDENTIFICATION

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(1)	(2)	(3)	(4)	(5)	(6)

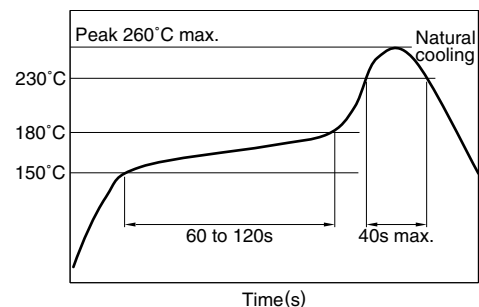
- Series name
- Dimensions L×W
- Product identification number
- Impedance[at 100MHz]
120: 12Ω
- Number of line
2P: 2-line
- Packaging style
T: ø180mm reel taping

RECOMMENDED SOLDERING CONDITIONS

RECOMMENDED TEMPERATURE PROFILE FOR LEAD-FREE SOLDER



REFLOW PROFILE FOR SOLDER HEAT RESISTANCE



• 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.

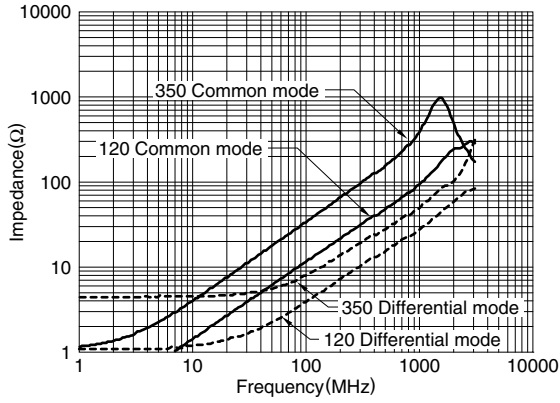
• All specifications are subject to change without notice.

ELECTRICAL CHARACTERISTICS

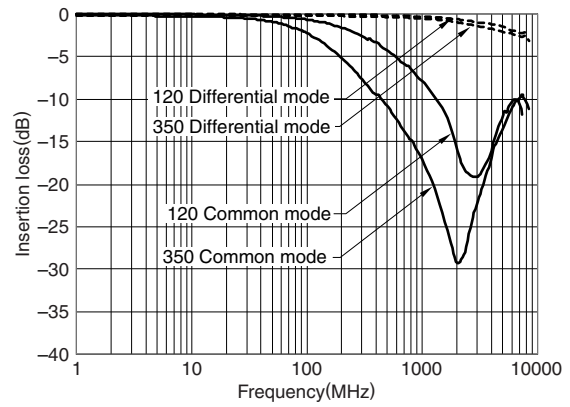
Part No.	Common mode impedance (Ω)[at 100MHz]	DC resistance (Ω)max. [1 line]	Cutoff frequency (GHz)typ.	Rated current Idc (A)max.	Rated voltage Edc (V)max.	Insulation resistance (M Ω)min.
TCM0605S-120-2P	12 \pm 5	1.0	8.5	0.1	10	10
TCM0605S-350-2P	35 \pm 12	2.7	8.0	0.1	10	10

TYPICAL ELECTRICAL CHARACTERISTICS

IMPEDANCE vs. FREQUENCY CHARACTERISTICS



INSERTION LOSS vs. FREQUENCY CHARACTERISTICS



Common Mode Filters

For Ultra High-speed Differential Signal Line (HDMI, DVI, DisplayPort, USB3.0, etc.)

Conformity to RoHS Directive

TCM Series TCM0806S

FEATURES

- Thin-film common mode filter with a wide bandwidth for high-speed differential signal interfaces such as USB 3.0 and DisplayPort.
- 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(HDMI, DVI, DisplayPort, USB3.0 and Serial ATA, etc.) in electronics devices.
- Notebook PCs, PDP/LCD/DLP/PJ TVs, portable audio, digital cellular phones, DVC, DSC, DVD players, amusement machines, etc.

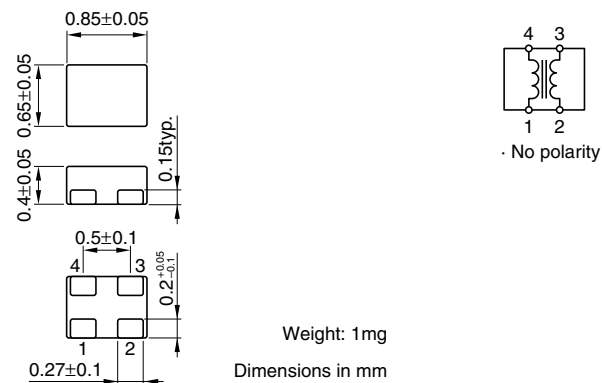
TEMPERATURE RANGES

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

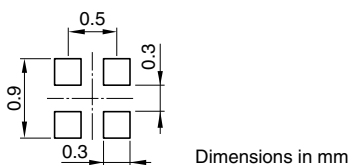
PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	10000 pieces/reel

SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



RECOMMENDED PC BOARD PATTERN

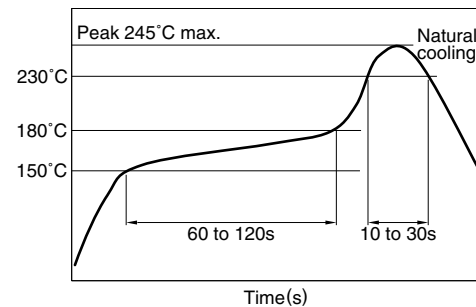


PRODUCT IDENTIFICATION

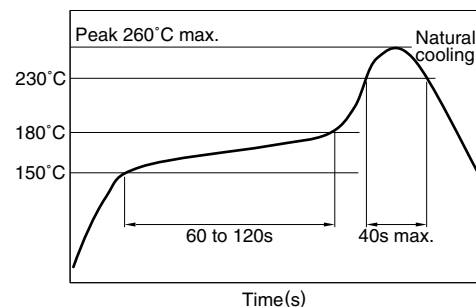
TCM	0806	S	- 120	- 2P	- T
(1)	(2)	(3)	(4)	(5)	(6)

- Series name
- Dimensions L×W
- Product identification number
- Impedance[at 100MHz]
120: 12Ω
- 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



• 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.

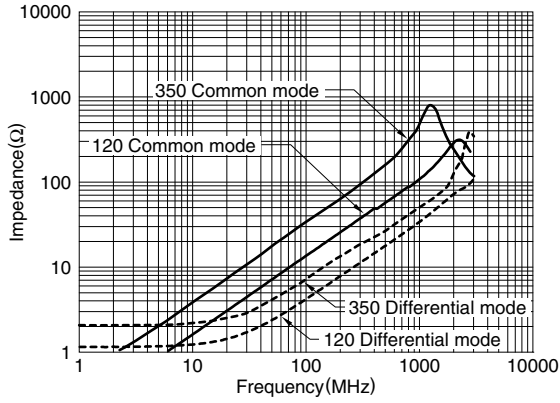
• All specifications are subject to change without notice.

ELECTRICAL CHARACTERISTICS

Part No.	Common mode impedance (Ω)[at 100MHz]	DC resistance (Ω)max. [1 line]	Cutoff frequency (GHz)typ.	Rated current Idc (A)max.	Rated voltage Edc (V)max.	Insulation resistance (M Ω)min.
TCM0806S-120-2P	12 \pm 5	1	8.5	0.1	10	10
TCM0806S-350-2P	35 \pm 12	1.5	7.0	0.1	10	10

TYPICAL ELECTRICAL CHARACTERISTICS

IMPEDANCE vs. FREQUENCY CHARACTERISTICS



INSERTION LOSS vs. FREQUENCY CHARACTERISTICS

