Common Mode Filters

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

TCE series

Type:	**TCE1210**	**[0504 inch]***
	TCE1210U	**[0504 inch]**
	TCE1608	**[0603 inch]**

*** Dimensions Code [EIA]**

Issue date: September 2011

- 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.

TDK

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

Conformity to RoHS Directive

TCE Series TCE1210

FEATURES

- Common mode filter for improving EMC with an ESD protection element (ESD suppressor) using thin-film processing and material technology acquired from HDD head manufacturing.
- One component can be used for suppressing common mode noise and ESD.
- Greatly reduces the number of components and installation area.
- By providing wide bandwidth (cutoff frequency: 3GHz min.) 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

Suppressing noise and ESD for high-speed differential signal interfaces such as USB 2.0, USB3.0 and HDMI for mobile devices such as mobile phones, smartphones, digital cameras, and portable music players, and general consumer products.

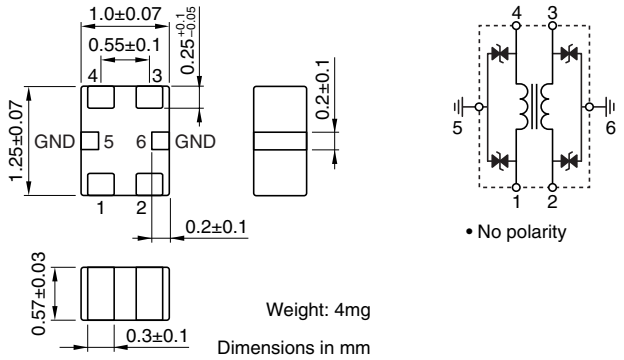
TEMPERATURE RANGES

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

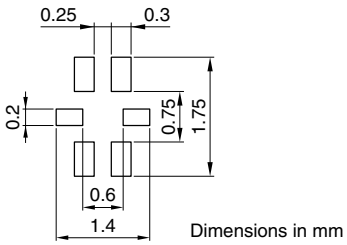
PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	4000 pieces/reel

SHAPES AND DIMENSIONS/CIRCUIT DIAGRAMS



RECOMMENDED PC BOARD PATTERNS

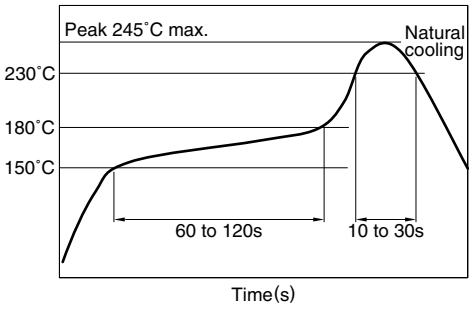


PRODUCT IDENTIFICATION

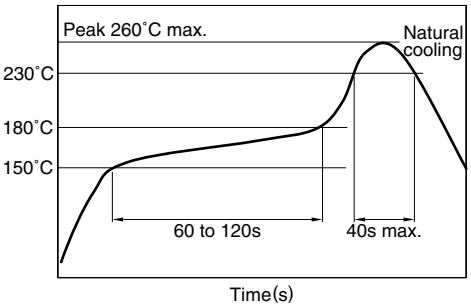
TCE	1210	-	900	-	2P	-	T
(1)	(2)		(3)		(4)		(5)

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

RECOMMENDED SOLDERING CONDITIONS
RECOMMENDED TEMPERATURE PROFILE FOR LEAD-FREE SOLDER



REFLOW PROFILE FOR SOLDER HEAT RESISTANCE



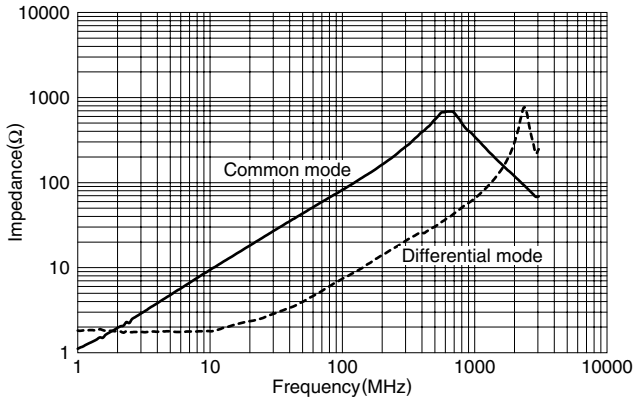
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

ELECTRICAL CHARACTERISTICS

Part No.	Common mode impedance (Ω) [100MHz]		DC resistance (Ω)max. [1 line]	Cutoff frequency (GHz)typ.	Clamp voltage (V)max.	Rated current Idc (A)max.	Rated voltage Edc (V)max.	Insulation resistance (MΩ)min.
	min.	typ.						
TCE1210-900-2P	60	90	1.75	5.0	100	0.1	10	1

TYPICAL ELECTRICAL CHARACTERISTICS

IMPEDANCE vs. FREQUENCY CHARACTERISTICS



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

Conformity to RoHS Directive

TCE Series TCE1210U

FEATURES

- Common mode filter for improving EMC with an ESD protection element (ESD suppressor) using thin-film processing and material technology acquired from HDD head manufacturing.
- One component can be used for suppressing common mode noise and ESD.
- Greatly reduces the number of components and installation area.
- By providing wide bandwidth (cutoff frequency: 3GHz min.) 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

Suppressing noise and ESD for high-speed differential signal interfaces such as USB 3.0, HDMI, and Serial ATA for mobile devices such as mobile phones, smartphones, digital cameras, and portable music players, and general consumer products.

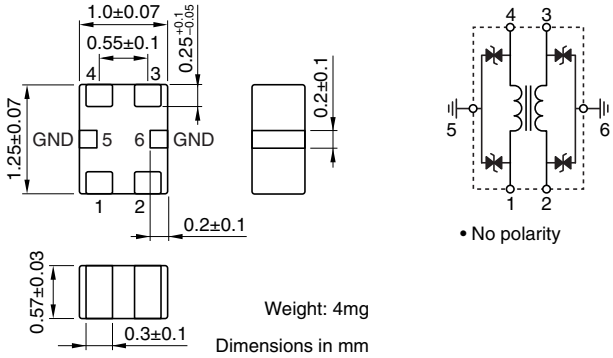
TEMPERATURE RANGES

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

PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	4000 pieces/reel

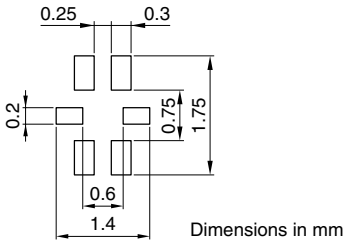
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAMS



Weight: 4mg

Dimensions in mm

RECOMMENDED PC BOARD PATTERNS



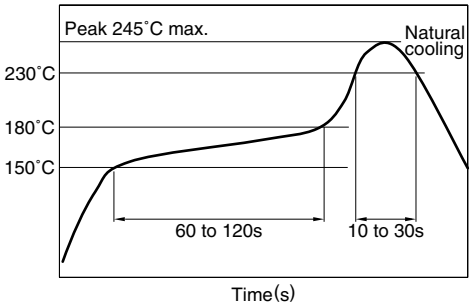
Dimensions in mm

PRODUCT IDENTIFICATION

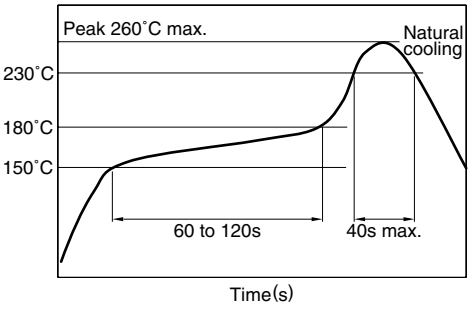
TCE	1210	□	-	500	-	2P	-	T
(1)	(2)	(3)		(4)		(5)		(6)

(1) Series name
(2) Dimensions L×W
(3) Product identification number
(4) Impedance[at 100MHz]
500: 50Ω
(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



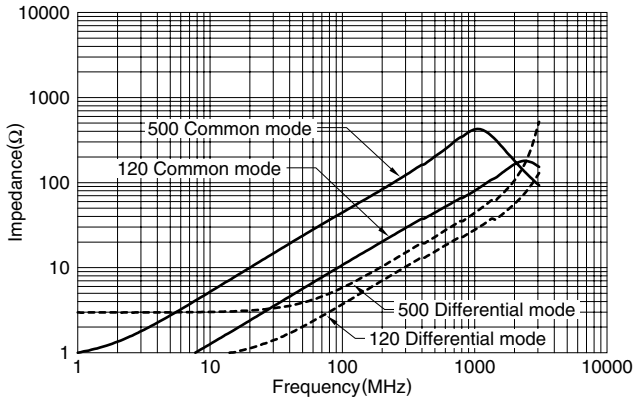
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

ELECTRICAL CHARACTERISTICS

Part No.	Common mode impedance (Ω) [100MHz]	DC resistance (Ω)max. [1 line]	Cutoff frequency (GHz)typ.	Clamp voltage (V)max.	Rated current Idc (A)max.	Rated voltage Edc (V)max.	Insulation resistance (MΩ)min.
TCE1210U-500-2P	50±20	1.7	6.5	100	0.1	10	1
TCE1210U-120-2P	12±5	0.7	8.0	120	0.1	10	1

TYPICAL ELECTRICAL CHARACTERISTICS

IMPEDANCE vs. FREQUENCY CHARACTERISTICS



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

Conformity to RoHS Directive

TCE Series TCE1608

FEATURES

- Common mode filter for improving EMC with an ESD protection element (ESD Suppressor) using thin-film processing and material technology acquired from HDD head manufacturing.
- One component can be used for suppressing common mode noise and ESD.
- Greatly reduces the number of components and installation area.
- By providing wide bandwidth (cutoff frequency: 3GHz min.) 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

Suppressing noise and ESD for high-speed differential signal interfaces such as USB 3.0, HDMI, and Serial ATA for mobile devices such as mobile phones, smartphones, digital cameras, and portable music players, and general consumer products.

TEMPERATURE RANGES

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

PACKAGING STYLE AND QUANTITIES

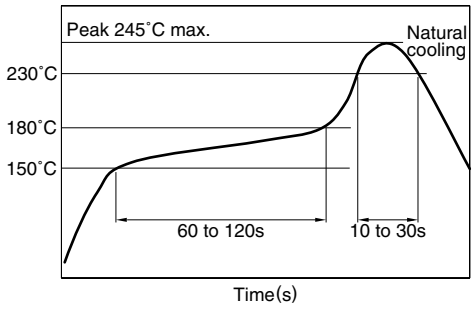
Packaging style	Quantity
Taping	4000 pieces/reel

PRODUCT IDENTIFICATION

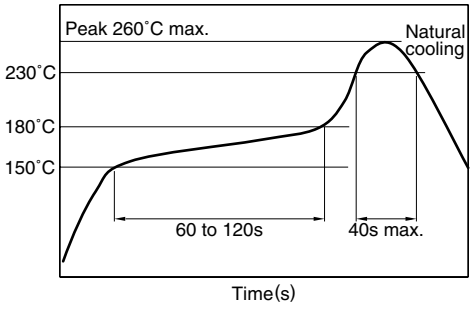
TCE	1608	-	900	-	4P	-	T
(1)	(2)		(3)		(4)		(5)

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

RECOMMENDED SOLDERING CONDITIONS
RECOMMENDED TEMPERATURE PROFILE FOR LEAD-FREE SOLDER

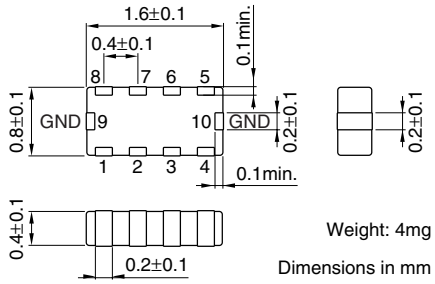


REFLOW PROFILE FOR SOLDER HEAT RESISTANCE



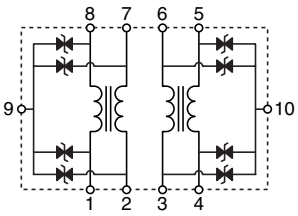
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

SHAPES AND DIMENSIONS/CIRCUIT DIAGRAMS/RECOMMENDED PC BOARD PATTERNS

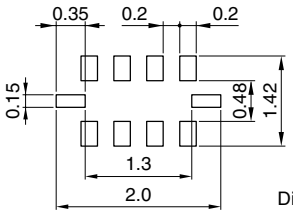


Weight: 4mg

Dimensions in mm



• No polarity



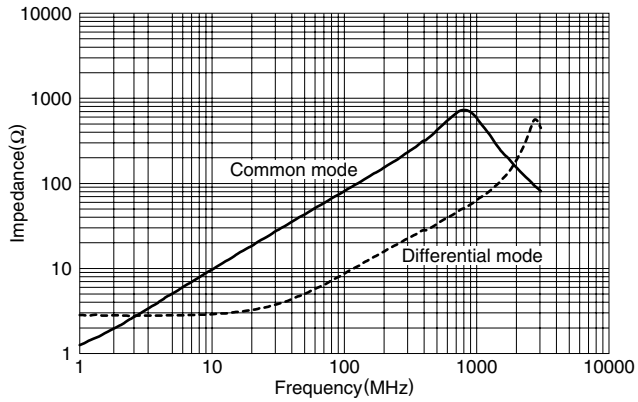
Dimensions in mm

ELECTRICAL CHARACTERISTICS

Part No.	Common mode impedance (Ω) [100MHz]		DC resistance (Ω)max. [1 line]	Cutoff frequency (GHz)typ.	Clamp voltage (V)max.	Rated current Idc (A)max.	Rated voltage Edc (V)max.	Insulation resistance (MΩ)min.
	min.	typ.						
TCE1608-900-4P	60	90	1.95	5.0	100	0.1	10	1

TYPICAL ELECTRICAL CHARACTERISTICS

IMPEDANCE vs. FREQUENCY CHARACTERISTICS



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Common Mode Chokes / Filters ***category:***

Click to view products by TDK ***manufacturer:***

Other Similar products are found below :

RGCMF1210900H3T UAL21V07012500 UAL21VR0802000 UAL24VR06500CH UALSC0220G0000 UALSC058000000 UALSC0580J0000 UALSC1520JH000 UALSU10VR15019 UALSU16VD30030 UALSU16VD40010 UALSU9H0305000 UALSU9HF030600 UALSU9HF060300 UALSU9HR050340 UALSU9VD070100 UALSU9VR070170 36-00037 5701610000 CM7060M132R-10 UALW21HS200290 UALW21HS072450 UALSU9VD070400 UALSU9V0701000 UALSU9HR030900 UALSU9HF050500 UALSU9H0701000 UALSU9H0208000 UALSU9H0110000 UALSCF25081300 UALSC0305GS000 UALSC0120G0000 UAL24VK06450CH UAL11VL1105000 36-00029-01 RN112-3.6-02-0M4 RN114-1.2-02-10M RN122-0.6-02-47M RN122-3-02-4M5 RN142-1-02-33M RN214-2.5-02-3M3 RN112-2-02-1M0 RN143-6-02-1M8 RN214-0.8-02-27M RN242-1.4-02-27M EXC-X4CH120X CMF16-153131 CMF23H-273141 CMF23V-273141 744252510