

# REMINDERS

Please read this before using the product.

## SAFETY REMINDERS

### REMINDERS

1. If you intend to use a product listed in this catalog for a purpose that may cause loss of life or other damage, you must contact our company's sales window.
2. We may modify products or discontinue production of a product listed in this catalog without prior notification.
3. We provide "Delivery Specification" that explain precautions for the specifications and safety of each product listed in this catalog. We strongly recommend that you exchange these delivery specifications with customers that use one of these products.
4. If you plan to export a product listed in this catalog, keep in mind that it may be a restricted item according to the "Foreign Exchange and Foreign Trade Control Law". In such cases, it is necessary to acquire export permission in harmony with this law.
5. Any reproduction or transferring of the contents of this catalog is prohibited without prior permission from our company.
6. We are not responsible for problems that occur related to the intellectual property rights or other rights of our company or a third party when you use a product listed in this catalog. We do not grant license of these rights.
7. This catalog only applies to products purchased through our company or one of our company's official agencies. This catalog does not apply to products that are purchased through other third parties.
8. The descriptions in this catalog apply as of April 2007.

# High Voltage Multilayer Ceramic Chip Capacitors

## C Series C4520(EIA CC1808) Type

Conformity to RoHS Directive

### Temperature Characteristic: X7R

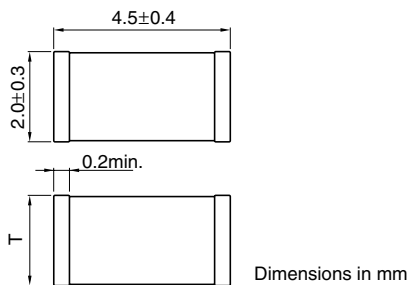
#### FEATURES

- No polarity.
- Suits 100Base-T LAN cards, LAN board, and HUB.
- Complies with ISO8802-3 for LAN applications.
- Designed exclusively for reflow soldering.

#### APPLICATIONS

Input signal filtering circuit of modem and LAN interface, and general high voltage circuits.

#### SHAPES AND DIMENSIONS



#### PRECAUTIONS

- This product intended solely for reflow soldering.
- A slit of about 1mm on the circuit board is recommended to improve washability of the flux after soldering.
- Ensure that this product is completely dried following washing.
- Because this product will be subjected to high voltages, use only low-activity rosin flux (with 0.2% max. of chlorine).
- Using this product with aluminum circuit boards must be considered a special implementation because the high heat stress levels are involved. In case of using aluminum circuit boards, please contact TDK.

#### CAPACITANCE RANGES: CLASS 2

##### TEMPERATURE CHARACTERISTICS: X7R(±15%)

RATED VOLTAGE E<sub>dc</sub>: 2000V

Capacitance (pF)	Tolerance	Thickness T (mm)	Part No. Temperature characteristics: X7R
470	±10%	1.30±0.20	C4520X7R3D471K
1,000	±10%	1.30±0.20	C4520X7R3D102K

RATED VOLTAGE E<sub>dc</sub>: 1000V

Capacitance (pF)	Tolerance	Thickness T (mm)	Part No. Temperature characteristics: X7R
470	±10%	1.30±0.20	C4520X7R3A471K
1,000	±10%	1.30±0.20	C4520X7R3A102K

#### PRODUCT IDENTIFICATION

C	4520	X7R	3A	471	K	□
(1)	(2)	(3)	(4)	(5)	(6)	(7)

(1) Series name

(2) Dimensions L×W

4520	4.5×2.0mm
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(3) Capacitance temperature characteristics  
Class 2 (Temperature stable and general purpose)

Temperature characteristics	Temperature coefficient	Temperature range
X7R	±15%	-55 to +125°C

(4) Rated voltage E<sub>dc</sub>

3A	1kV
3D	2kV

(5) Nominal capacitance

The capacitance is expressed in three digit codes and in units of pico farads(pF).

The first and second digits identify the first and second significant figures of the capacitance.

The third digit identifies the multiplier.

471	470pF
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(6) Capacitance tolerance

K	±10%
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(7) Packaging style

T	Taping (reel)
B	Bulk

• For more information about the products of other capacitance or data, please contact us.

• 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.  
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# C Series C4532(EIA CC1812) Type

Conformity to RoHS Directive

## Temperature Characteristic: X7R

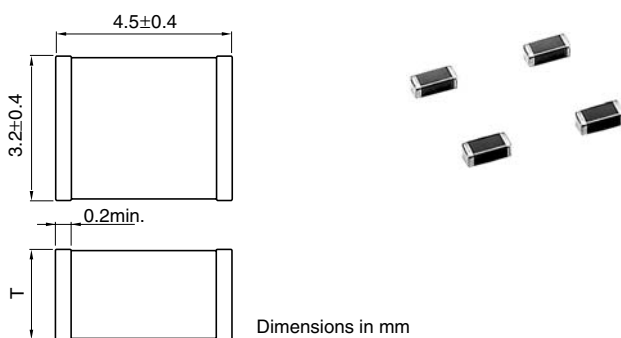
### FEATURES

- No polarity.
- Suits 100Base-T LAN cards, LAN board, and HUB.
- Complies with ISO8802-3 for LAN applications.
- Designed exclusively for reflow soldering.

### APPLICATIONS

Input signal filtering circuit of modem and LAN interface, and general high voltage circuits.

### SHAPES AND DIMENSIONS



### PRECAUTIONS

- This product intended solely for reflow soldering.
- A slit of about 1mm on the circuit board is recommended to improve washability of the flux after soldering.
- Ensure that this product is completely dried following washing.
- Because this product will be subjected to high voltages, use only low-activity rosin flux (with 0.2% max. of chlorine).
- Using this product with aluminum circuit boards must be considered a special implementation because the high heat stress levels are involved. In case of using aluminum circuit boards, please contact TDK.

### CAPACITANCE RANGES: CLASS 2

#### TEMPERATURE CHARACTERISTICS: X7R(±15%)

RATED VOLTAGE E<sub>dc</sub>: 2000V

Capacitance (pF)	Tolerance	Thickness T (mm)	Part No.
2,200	±10%	1.30±0.20	C4532X7R3D222K

RATED VOLTAGE E<sub>dc</sub>: 1000V

Capacitance (pF)	Tolerance	Thickness T (mm)	Part No.
4,700	±10%	1.60±0.20	C4532X7R3A472K
10,000	±10%	2.00±0.20	C4532X7R3A103K

### PRODUCT IDENTIFICATION

C 4532 X7R 3A 472 K □  
(1) (2) (3) (4) (5) (6) (7)

(1) Series name

(2) Dimensions L×W

4532 4.5×3.2mm

(3) Capacitance temperature characteristics

Class 2 (Temperature stable and general purpose)

Temperature characteristics	Temperature coefficient	Temperature range
X7R	±15%	-55 to +125°C

(4) Rated voltage E<sub>dc</sub>

3A	1kV
3D	2kV

(5) Nominal capacitance

The capacitance is expressed in three digit codes and in units of pico farads(pF).

The first and second digits identify the first and second significant figures of the capacitance.

The third digit identifies the multiplier.

471	470pF
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(6) Capacitance tolerance

K	±10%
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(7) Packaging style

T	Taping (reel)
B	Bulk

- For more information about the products of other capacitance or data, please contact us.

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