

# Ceramic Capacitors

For General Use  
4-Element Array

## CKC Series

### FEATURES

- The CKC Series are integrated, single-chip, 4-element capacitors that are highly effective in EMC countermeasure applications.
- They are particularly effective when used as a bypass for digital signal line noise, thereby preventing EMC around connectors.

### PRODUCT IDENTIFICATION

CKC A43 JF 1C 104 Z □  
(1) (2) (3) (4) (5) (6) (7)

(1) Series name

(2) Dimensions L×W

L44	2.0×1.25mm
A43	3.2×1.6mm

(3) Capacitance temperature characteristics

Class 1 (Temperature compensation)

Temperature characteristics	Capacitance change	Temperature range
COG	0±30ppm/°C	-55 to +125°C

Class 2 (Temperature stable and general purpose)

Temperature characteristics	Capacitance change	Temperature range
X7R	±15%	-55 to +125°C
X5R	±15%	-55 to +85°C
Y5V	+22, -82%	-30 to +85°C

(4) Rated voltage Edc

0J	6.3V
1A	10V
1C	16V
1E	25V
1H	50V

### APPLICATIONS

For use as a bypass for digital and analog signal line noise generated by telecommunications equipment and other common electronic circuits.

(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.

R designates a decimal point.

104	10000pF
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(6) Capacitance tolerance

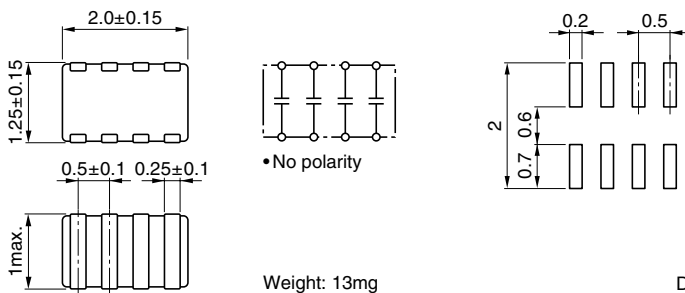
F	±1pF
K	±10%
M	±20%
Z	+80, -20%

(7) Packaging style

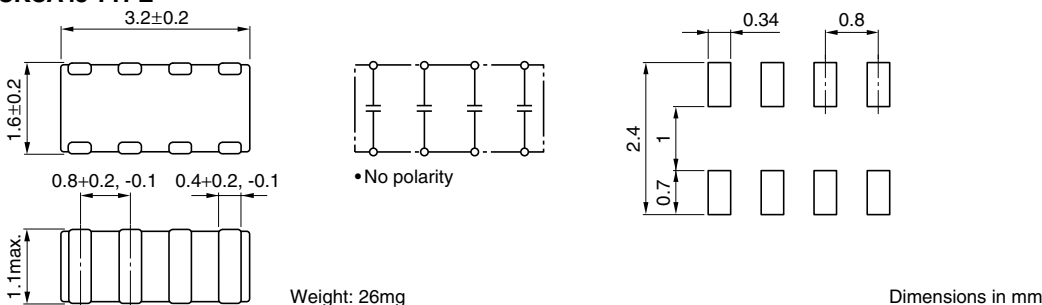
T	Taping (reel)
B	Bulk

### SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM/RECOMMENDED PC BOARD PATTERN

#### CKCL44 TYPE



#### CKCA43 TYPE



• All specifications are subject to change without notice.

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## CKC Series

### CKCL44 TYPE

#### CAPACITANCE RANGES :

#### CLASS 1 (TEMPERATURE COMPENSATION)

TEMPERATURE CHARACTERISTICS: C0G (0±30ppm/°C)

RATED VOLTAGE E<sub>dc</sub>:50V

Capacitance (pF)	Tolerance	Thickness T (mm)max.	Part No.
10	±1pF	1.0	CKCL44C0G1H100F
15	±10%	1.0	CKCL44C0G1H150K
22	±10%	1.0	CKCL44C0G1H220K
33	±10%	1.0	CKCL44C0G1H330K
39	±10%	1.0	CKCL44C0G1H390K
47	±10%	1.0	CKCL44C0G1H470K
68	±10%	1.0	CKCL44C0G1H680K
100	±10%	1.0	CKCL44C0G1H101K
150	±10%	1.0	CKCL44C0G1H151K

#### CLASS 2

TEMPERATURE CHARACTERISTICS: X7R (±15%)

RATED VOLTAGE E<sub>dc</sub>: 50V

Capacitance (pF)	Tolerance	Thickness T (mm)max.	Part No.
220	±20%	1.0	CKCL44X7R1H221M
470	±20%	1.0	CKCL44X7R1H471M
1000	±20%	1.0	CKCL44X7R1H102M
2200	±20%	1.0	CKCL44X7R1H222M
4700	±20%	1.0	CKCL44X7R1H472M

RATED VOLTAGE E<sub>dc</sub>:25V

Capacitance (pF)	Tolerance	Thickness T (mm)max.	Part No.
10000	±20%	1.0	CKCL44X7R1E103M

RATED VOLTAGE E<sub>dc</sub>:16V

Capacitance (pF)	Tolerance	Thickness T (mm)max.	Part No.
22000	±20%	1.0	CKCL44X7R1C223M

TEMPERATURE CHARACTERISTICS: X5R (±15%)

RATED VOLTAGE E<sub>dc</sub>:10V

Capacitance (pF)	Tolerance	Thickness T (mm)max.	Part No.
47000	±20%	1.0	CKCL44X5R1A473M

RATED VOLTAGE E<sub>dc</sub>:6.3V

Capacitance (pF)	Tolerance	Thickness T (mm)max.	Part No.
100000	±20%	1.0	CKCL44X5R0J104M

### CKCA43 TYPE

#### CAPACITANCE RANGES :

#### CLASS 1 (TEMPERATURE COMPENSATION)

TEMPERATURE CHARACTERISTICS: C0G (0±30ppm/°C)

RATED VOLTAGE E<sub>dc</sub>:50V

Capacitance (pF)	Tolerance	Thickness T (mm)max.	Part No.
10	±1pF	1.1	CKCA43C0G1H100F
15	±10%	1.1	CKCA43C0G1H150K
22	±10%	1.1	CKCA43C0G1H220K
33	±10%	1.1	CKCA43C0G1H330K
39	±10%	1.1	CKCA43C0G1H390K
47	±10%	1.1	CKCA43C0G1H470K
68	±10%	1.1	CKCA43C0G1H680K
100	±10%	1.1	CKCA43C0G1H101K
150	±10%	1.1	CKCA43C0G1H151K
220	±10%	1.1	CKCA43C0G1H221K
330	±10%	1.1	CKCA43C0G1H331K
470	±10%	1.1	CKCA43C0G1H471K

#### CLASS 2

TEMPERATURE CHARACTERISTICS: X7R (±15%)

RATED VOLTAGE E<sub>dc</sub>: 50V

Capacitance (pF)	Tolerance	Thickness T (mm)max.	Part No.
470	±20%	1.1	CKCA43X7R1H471M
1000	±20%	1.1	CKCA43X7R1H102M
2200	±20%	1.1	CKCA43X7R1H222M
4700	±20%	1.1	CKCA43X7R1H472M
10000	±20%	1.1	CKCA43X7R1H103M
22000	±20%	1.1	CKCA43X7R1H223M

RATED VOLTAGE E<sub>dc</sub>:25V

Capacitance (pF)	Tolerance	Thickness T (mm)max.	Part No.
47000	±20%	1.1	CKCA43X7R1E473M

RATED VOLTAGE E<sub>dc</sub>:16V

Capacitance (pF)	Tolerance	Thickness T (mm)max.	Part No.
100000	±20%	1.1	CKCA43X7R1C104M

TEMPERATURE CHARACTERISTICS: Y5V (+22, -82%)

RATED VOLTAGE E<sub>dc</sub>:16V

Capacitance (pF)	Tolerance	Thickness T (mm)max.	Part No.
100000	+80, -20%	1.1	CKCA43Y5V1C104Z
220000	+80, -20%	1.1	CKCA43Y5V1C224Z
470000	+80, -20%	1.1	CKCA43Y5V1C474Z

• More information about products with other capacitance or other data, please contact us.

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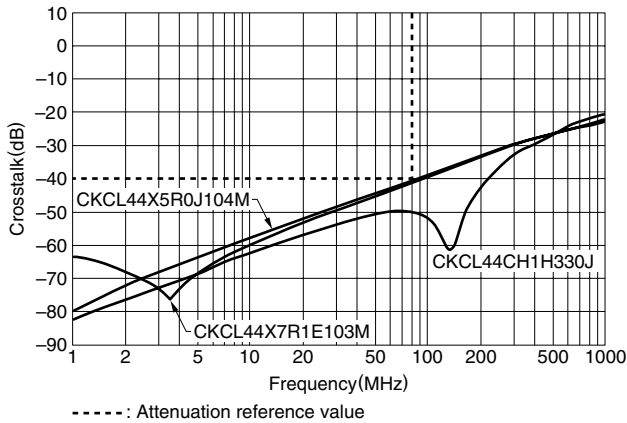
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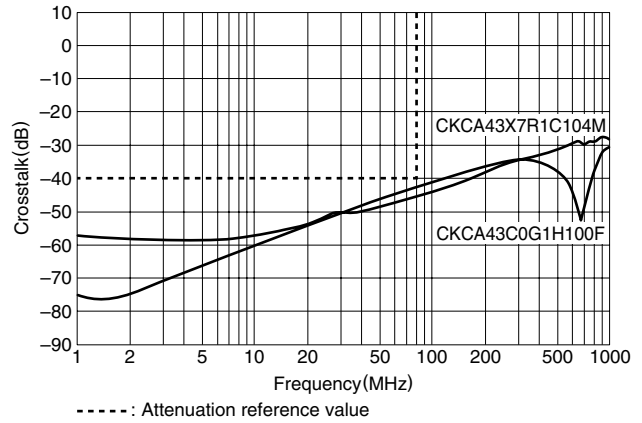
## TYPICAL ELECTRICAL CHARACTERISTICS

### CROSSTALK CHARACTERISTICS

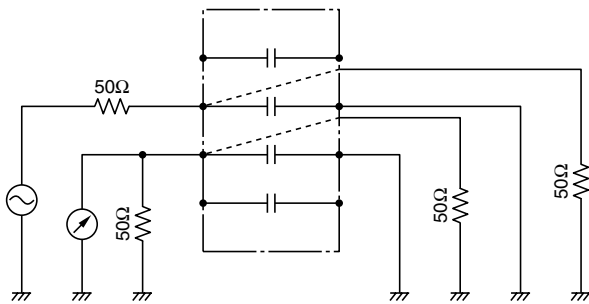
#### CKCL44 Type



#### CKCA43 Type



### MEASURING CIRCUIT



- Measurement were performed by wiring this product onto a printed circuit board configured as in the diagram above.

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