

Ceramic Capacitors

For General Use 2-Element Array

CKC Series

FEATURES

- Two capacitors are fitted in a single product, contributing to reduced installation costs.
- The electrostatic capacity range and shape are designed to meet the demands of the cellular phone market.
- Reduced crosstalk (signal interference) between the terminals.
- Available on tape or in bulk.

PRODUCT IDENTIFICATION

CKC	M25	X5R	1A	223	M	□
(1)	(2)	(3)	(4)	(5)	(6)	(7)

(1) Series name

(2) Dimensions L×W

M25	1.37×1.0mm
L22	2.0×1.25mm

(3) Capacitance temperature characteristics

Class 1 (Temperature compensation)

Temperature characteristics	Capacitance change	Temperature range
C0G	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

(4) Rated voltage E_{dc}

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

APPLICATIONS

They are suited for circuits that require multiple identical capacitors in a particular area of a board, such as interfaces and high-frequency noise bypass circuits on cellular phones, interfaces including I/O cables on PCs and peripherals, as well as CPU bus lines.

(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.

223	22000pF
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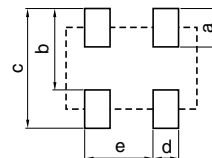
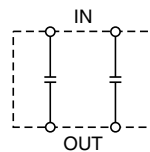
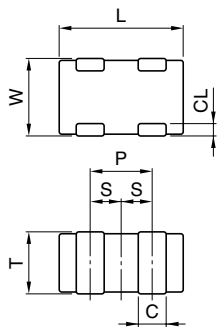
(6) Capacitance tolerance

F	±1pF
K	±10%
M	±20%

(7) Packaging style

T	Taping (reel)
B	Bulk

SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM/RECOMMENDED PC BOARD PATTERN



Dimensions in mm		
Type	CKCM25	CKCL22
L	1.37±0.15	2.0±0.15
W	1.0±0.15	1.25±0.15
T	0.66max.	1.0max.
C	0.36±0.1	0.45±0.1
CL	0.20±0.1	0.20±0.2, -0.1
P	0.64±0.1	1.0±0.1
S	0.32±0.1	0.32±0.1

Dimensions in mm		
Type	CKCM25	CKCL22
a	0.45	0.60
b	0.75	1.00
c	1.20	1.60
d	0.30	0.50
e	0.64	1.00

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2-Element Array

CKC Series

CKCM25 TYPE

CAPACITANCE RANGES :

CLASS 1 (TEMPERATURE COMPENSATION)

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

RATED VOLTAGE Edc: 50V

Capacitance (pF)	Tolerance	Thickness T (mm)max.	Part No.
10	±1pF	0.66	CKCM25C0G1H100F
15	±10%	0.66	CKCM25C0G1H150K
22	±10%	0.66	CKCM25C0G1H220K
33	±10%	0.66	CKCM25C0G1H330K
47	±10%	0.66	CKCM25C0G1H470K
68	±10%	0.66	CKCM25C0G1H680K
100	±10%	0.66	CKCM25C0G1H101K

CLASS 2

TEMPERATURE CHARACTERISTICS: X7R(±15%)

RATED VOLTAGE Edc: 50V

Capacitance (pF)	Tolerance	Thickness T (mm)max.	Part No.
1000	±20%	0.66	CKCM25X7R1H102M
2200	±20%	0.66	CKCM25X7R1H222M

RATED VOLTAGE Edc: 25V

Capacitance (pF)	Tolerance	Thickness T (mm)max.	Part No.
4700	±20%	0.66	CKCM25X7R1E472M

RATED VOLTAGE Edc: 16V

Capacitance (pF)	Tolerance	Thickness T (mm)max.	Part No.
10000	±20%	0.66	CKCM25X7R1C103M

TEMPERATURE CHARACTERISTICS: X5R(±15%)

RATED VOLTAGE Edc: 10V

Capacitance (pF)	Tolerance	Thickness T (mm)max.	Part No.
22000	±20%	0.66	CKCM25X5R1A223M
47000	±20%	0.66	CKCM25X5R1A473M

RATED VOLTAGE Edc: 6.3V

Capacitance (pF)	Tolerance	Thickness T (mm)max.	Part No.
100000	±20%	0.66	CKCM25X5R0J104M
220000	±20%	0.66	CKCM25X5R0J224M
470000	±20%	0.9	CKCM25X5R0J474M
1000000	±20%	0.9	CKCM25X5R0J105M

CKCL22 TYPE

CAPACITANCE RANGES :

CLASS 1 (TEMPERATURE COMPENSATION)

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

RATED VOLTAGE Edc: 50V

Capacitance (pF)	Tolerance	Thickness T (mm)max.	Part No.
10	±1pF	1	CKCL22C0G1H100F
15	±10%	1	CKCL22C0G1H150K
22	±10%	1	CKCL22C0G1H220K
33	±10%	1	CKCL22C0G1H330K
47	±10%	1	CKCL22C0G1H470K
68	±10%	1	CKCL22C0G1H680K
100	±10%	1	CKCL22C0G1H101K
150	±10%	1	CKCL22C0G1H151K
220	±10%	1	CKCL22C0G1H221K
470	±10%	1	CKCL22C0G1H471K

CLASS 2

TEMPERATURE CHARACTERISTICS: X7R(±15%)

RATED VOLTAGE Edc: 50V

Capacitance (pF)	Tolerance	Thickness T (mm)max.	Part No.
1000	±20%	1	CKCL22X7R1H102M
2200	±20%	1	CKCL22X7R1H222M
4700	±20%	1	CKCL22X7R1H472M
10000	±20%	1	CKCL22X7R1H103M

RATED VOLTAGE Edc: 25V

Capacitance (pF)	Tolerance	Thickness T (mm)max.	Part No.
22000	±20%	1	CKCL22X7R1E223M
47000	±20%	1	CKCL22X7R1E473M

RATED VOLTAGE Edc: 16V

Capacitance (pF)	Tolerance	Thickness T (mm)max.	Part No.
100000	±20%	1	CKCL22X7R1C104M

TEMPERATURE CHARACTERISTICS: X5R(±15%)

RATED VOLTAGE Edc: 10V

Capacitance (pF)	Tolerance	Thickness T (mm)max.	Part No.
220000	±20%	1	CKCL22X5R1A224M

RATED VOLTAGE Edc: 6.3V

Capacitance (pF)	Tolerance	Thickness T (mm)max.	Part No.
470000	±20%	1	CKCL22X5R0J474M
1000000	±20%	1	CKCL22X5R0J105M

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

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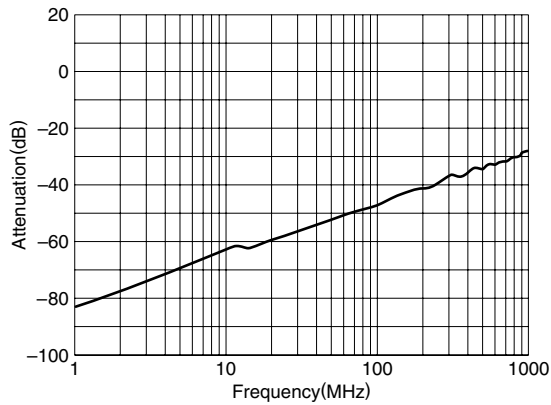
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TYPICAL ELECTRICAL CHARACTERISTICS

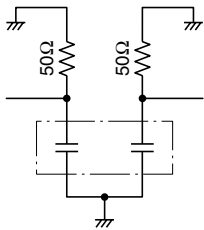
CROSSTALK CHARACTERISTICS

CKCM25X5R1A105K



Test equipment: HEWLETT PACKARD 8753D NETWORK ANALYZER

MEASURING CIRCUIT



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

- All specifications are subject to change without notice.