

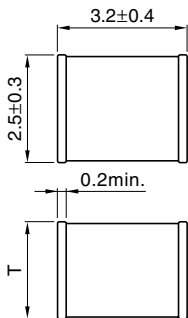
C Series C3225(EIA CC1210) Type

Conformity to RoHS Directive

FEATURES

- High capacitance has been achieved through precision technologies that enable the use of multiple thinner ceramic dielectric layers.
- A monolithic structure ensures superior mechanical strength and reliability.
- High-accuracy automatic mounting is facilitated through the maintenance of very precise dimensional tolerances.
- Composed of only ceramics and metals, these capacitors provide extremely dependable performance, exhibiting virtually no degradation even when subjected to temperature extremes.
- Low stray capacitance ensures high conformity with nominal values, thereby simplifying the circuit design process.
- Low residual inductance assures superior frequency characteristics.
- Because electrostatic capacity has been obtained up to the electrolytic capacitor range, these capacitors offer long service life and are optimally suited for power supply designs that require high levels of reliability.
- Owing to their low ESR and excellent frequency characteristics, these products are optimally suited for high frequency and high-density type power supplies.

SHAPES AND DIMENSIONS



Dimensions in mm



PRODUCT IDENTIFICATION

C 3225 CH 1H 104 J □
(1) (2) (3) (4) (5) (6) (7)

(1) Series name

(2) Dimensions L×W

3225	3.2×2.5mm
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(3) Capacitance temperature characteristics

Class 1 (Temperature compensation)

Temperature characteristics	Capacitance change	Temperature range
CH	0±60ppm/°C	-25 to +85°C
C0G	0±30ppm/°C	-55 to +125°C

Class 2 (Temperature stable and general purpose)

Temperature characteristics	Capacitance change	Temperature range
JB	±10%	-25 to +85°C
JF	+30, -80%	-25 to +85°C
X7R	±15%	-55 to +125°C
X5R	±15%	-55 to +85°C
Y5V	+22, -82%	-30 to +85°C

(4) Rated voltage E_{dc}

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

(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.

010	1pF
100	10pF
102	1,000pF

(6) Capacitance tolerance

J	±5%
K	±10%
M	±20%
Z	+80, -20%

(7) Packaging style

T	Taping (reel)
B	Bulk

• 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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CAPACITANCE RANGES: CLASS 1 (TEMPERATURE COMPENSATION)
TEMPERATURE CHARACTERISTICS: CH(0±60ppm/°C), C0G(0±30ppm/°C)

 RATED VOLTAGE E_{dc}: 50V

Capacitance (pF)	Tolerance	Thickness T (mm)	Part No.	
			Temperature characteristics: CH	Temperature characteristics: C0G
22,000	±5%	1.25±0.20	C3225CH1H223J	C3225C0G1H223J
33,000	±5%	1.6±0.20	C3225CH1H333J	C3225C0G1H333J
47,000	±5%	2.0±0.20	C3225CH1H473J	C3225C0G1H473J
68,000	±5%	2.0±0.20	C3225CH1H683J	C3225C0G1H683J
100,000	±5%	2.5±0.30	C3225CH1H104J	C3225C0G1H104J

CAPACITANCE RANGES: CLASS 2
TEMPERATURE CHARACTERISTICS: JB(±10%), X5R/X7R(±15%)

 RATED VOLTAGE E_{dc}: 50V

Capacitance (pF)	Tolerance	Thickness T (mm)	Part No.		
			Temperature characteristics: JB	Temperature characteristics: X5R	Temperature characteristics: X7R
470,000	±10%	1.15±0.10	C3225JB1H474K	C3225X5R1H474K	C3225X7R1H474K
	±20%	1.15±0.10	C3225JB1H474M	C3225X5R1H474M	C3225X7R1H474M
1,000,000	±10%	1.6±0.15	C3225JB1H105K	C3225X5R1H105K	C3225X7R1H105K
	±20%	1.6±0.15	C3225JB1H105M	C3225X5R1H105M	C3225X7R1H105M
1,500,000	±10%	2.0±0.20	C3225JB1H155K	C3225X5R1H155K	C3225X7R1H155K
	±20%	2.0±0.20	C3225JB1H155M	C3225X5R1H155M	C3225X7R1H155M
2,200,000	±10%	2.0±0.20	C3225JB1H225K	C3225X5R1H225K	C3225X7R1H225K
	±20%	2.0±0.20	C3225JB1H225M	C3225X5R1H225M	C3225X7R1H225M
3,300,000	±10%	2.5±0.20	C3225JB1H335K	C3225X5R1H335K	C3225X7R1H335K
	±20%	2.5±0.20	C3225JB1H335M	C3225X5R1H335M	C3225X7R1H335M

 RATED VOLTAGE E_{dc}: 25V

Capacitance (pF)	Tolerance	Thickness T (mm)	Part No.		
			Temperature characteristics: JB	Temperature characteristics: X5R	Temperature characteristics: X7R
1,500,000	±10%	1.15±0.10	C3225JB1E155K	C3225X5R1E155K	C3225X7R1E155K
	±20%	1.15±0.10	C3225JB1E155M	C3225X5R1E155M	C3225X7R1E155M
2,200,000	±10%	1.15±0.10	C3225JB1E225K	C3225X5R1E225K	C3225X7R1E225K
	±20%	1.15±0.10	C3225JB1E225M	C3225X5R1E225M	C3225X7R1E225M
3,300,000	±10%	1.6±0.15	C3225JB1E335K	C3225X5R1E335K	C3225X7R1E335K
	±20%	1.6±0.15	C3225JB1E335M	C3225X5R1E335M	C3225X7R1E335M
4,700,000	±10%	2.0±0.20	C3225JB1E475K	C3225X5R1E475K	C3225X7R1E475K
	±20%	2.0±0.20	C3225JB1E475M	C3225X5R1E475M	C3225X7R1E475M
6,800,000	±10%	2.0±0.20	C3225JB1E685K	C3225X5R1E685K	C3225X7R1E685K
	±20%	2.0±0.20	C3225JB1E685M	C3225X5R1E685M	C3225X7R1E685M
10,000,000	±10%	2.5±0.20	C3225JB1E106K	C3225X5R1E106K	C3225X7R1E106K
	±20%	2.5±0.20	C3225JB1E106M	C3225X5R1E106M	C3225X7R1E106M

 RATED VOLTAGE E_{dc}: 16V

Capacitance (pF)	Tolerance	Thickness T (mm)	Part No.		
			Temperature characteristics: JB	Temperature characteristics: X5R	Temperature characteristics: X7R
15,000,000	±20%	2.5±0.20	C3225JB1C156M	C3225X5R1C156M	C3225X7R1C156M
22,000,000	±20%	2.5±0.20	C3225JB1C226M	C3225X5R1C226M	C3225X7R1C226M

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TEMPERATURE CHARACTERISTICS: JB($\pm 10\%$), X5R($\pm 15\%$)
RATED VOLTAGE E_{dc}: 10V

Capacitance (pF)	Tolerance	Thickness T (mm)	Part No.	
			Temperature characteristics: JB	Temperature characteristics: X5R
15,000,000	$\pm 20\%$	2.3 \pm 0.20	C3225JB1A156M	C3225X5R1A156M
22,000,000	$\pm 20\%$	2.3 \pm 0.20	C3225JB1A226M	C3225X5R1A226M
33,000,000	$\pm 20\%$	2.0 \pm 0.20	C3225JB1A336M	C3225X5R1A336M
47,000,000	$\pm 20\%$	2.5 \pm 0.20	C3225JB1A476M	C3225X5R1A476M

RATED VOLTAGE E_{dc}: 6.3V

Capacitance (pF)	Tolerance	Thickness T (mm)	Part No.	
			Temperature characteristics: JB	Temperature characteristics: X5R
68,000,000	$\pm 20\%$	2.0 \pm 0.20	C3225JB0J686M	C3225X5R0J686M
100,000,000	$\pm 20\%$	2.5 \pm 0.40	C3225JB0J107M	C3225X5R0J107M

TEMPERATURE CHARACTERISTICS: X5R/X7R($\pm 15\%$)
RATED VOLTAGE E_{dc}: 50V

Capacitance (pF)	Tolerance	Thickness T (mm)	Part No.	
			Temperature characteristics: X5R	Temperature characteristics: X7R
2,200,000	$\pm 10\%$	2.0 \pm 0.20	C3225X5R1H225K	C3225X7R1H225K
	$\pm 20\%$	2.0 \pm 0.20	C3225X5R1H225M	C3225X7R1H225M
3,300,000	$\pm 10\%$	2.5 \pm 0.30	C3225X5R1H335K	C3225X7R1H335K
	$\pm 20\%$	2.5 \pm 0.30	C3225X5R1H335M	C3225X7R1H335M

RATED VOLTAGE E_{dc}: 25V

Capacitance (pF)	Tolerance	Thickness T (mm)	Part No.	
			Temperature characteristics: X5R	Temperature characteristics: X7R
6,800,000	$\pm 10\%$	2.5 \pm 0.20	C3225X5R1E685K	C3225X7R1E685K
	$\pm 20\%$	2.5 \pm 0.20	C3225X5R1E685M	C3225X7R1E685M
10,000,000	$\pm 10\%$	2.5 \pm 0.30	C3225X5R1E106K	C3225X7R1E106K
	$\pm 20\%$	2.5 \pm 0.30	C3225X5R1E106M	C3225X7R1E106M

RATED VOLTAGE E_{dc}: 16V

Capacitance (pF)	Tolerance	Thickness T (mm)	Part No.	
			Temperature characteristics: X5R	Temperature characteristics: X7R
10,000,000	$\pm 10\%$	2.0 \pm 0.20	C3225X5R1C106K	C3225X7R1C106K
	$\pm 20\%$	2.0 \pm 0.20	C3225X5R1C106M	C3225X7R1C106M
15,000,000	$\pm 20\%$	2.5 \pm 0.30	C3225X5R1C156M	C3225X7R1C156M
22,000,000	$\pm 20\%$	2.5 \pm 0.30	C3225X5R1C226M	C3225X7R1C226M

TEMPERATURE CHARACTERISTICS: X5R($\pm 15\%$)
RATED VOLTAGE E_{dc}: 10V

Capacitance (pF)	Tolerance	Thickness T (mm)	Part No.	
			Temperature characteristics: X5R	
15,000,000	$\pm 20\%$	2.0 \pm 0.20	C3225X5R1A156M	
22,000,000	$\pm 20\%$	2.3 \pm 0.30	C3225X5R1A226M	

RATED VOLTAGE E_{dc}: 6.3V

Capacitance (pF)	Tolerance	Thickness T (mm)	Part No.	
			Temperature characteristics: X5R	
22,000,000	$\pm 20\%$	1.6 \pm 0.15	C3225X5R0J226M	
33,000,000	$\pm 20\%$	2.0 \pm 0.20	C3225X5R0J336M	
47,000,000	$\pm 20\%$	2.5 \pm 0.40	C3225X5R0J476M	

TEMPERATURE CHARACTERISTICS: JF(+30, -80%), Y5V(+22, -82%)
RATED VOLTAGE Edc: 50V

Capacitance (pF)	Tolerance	Thickness T (mm)	Part No.	
			Temperature characteristics: JF	Temperature characteristics: Y5V
4,700,000	+80,-20%	1.15±0.10	C3225JF1H475Z	C3225Y5V1H475Z
10,000,000	+80,-20%	1.6±0.15	C3225JF1H106Z	C3225Y5V1H106Z

RATED VOLTAGE Edc: 25V

Capacitance (pF)	Tolerance	Thickness T (mm)	Part No.	
			Temperature characteristics: JF	Temperature characteristics: Y5V
10,000,000	+80,-20%	1.3±0.20	C3225JF1E106Z	C3225Y5V1E106Z
22,000,000	+80,-20%	2.0±0.20	C3225JF1E226Z	C3225Y5V1E226Z

RATED VOLTAGE Edc: 16V

Capacitance (pF)	Tolerance	Thickness T (mm)	Part No.	
			Temperature characteristics: JF	Temperature characteristics: Y5V
22,000,000	+80,-20%	1.3±0.20	C3225JF1C226Z	C3225Y5V1C226Z
47,000,000	+80,-20%	2.3±0.20	C3225JF1C476Z	C3225Y5V1C476Z

RATED VOLTAGE Edc: 10V

Capacitance (pF)	Tolerance	Thickness T (mm)	Part No.	
			Temperature characteristics: JF	Temperature characteristics: Y5V
22,000,000	+80,-20%	1.15±0.10	C3225JF1A226Z	C3225Y5V1A226Z
47,000,000	+80,-20%	2.0±0.20	C3225JF1A476Z	C3225Y5V1A476Z

RATED VOLTAGE Edc: 6.3V

Capacitance (pF)	Tolerance	Thickness T (mm)	Part No.	
			Temperature characteristics: JF	Temperature characteristics: Y5V
100,000,000	+80,-20%	2.5±0.40	C3225JF0J107Z	C3225Y5V0J107Z

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

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