MULTILAYER CERAMIC CHIP CAPACITORS

CGA Series
Automotive Grade
Open Mode

Type: **CGA4 [EIA CC0805]**

Issue date:
Oct 2013

REMINDERS

Please read before using this product

SAFETY REMINDERS

REMINDERS

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(Example)

Catalog Issued date	Catalog Number	Item Description (On Delivery Label)
Prior to January 2013	C1608C0G1E103J	C1608C0G1E103JT000N
January 2013 and Later	C1608C0G1E103J080AA	C1608C0G1E103JT000N

CGA Series

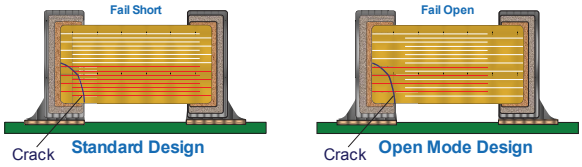
Open Mode

Type: CGA4 [EIA CC0805]

Lead Free | RoHS COMPLIANT | Ecological

Features

- When a chip capacitor is cracked by mechanical stress such as board bending, open mode construction helps user reduce the risk of short circuits.

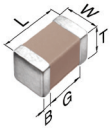


- Open Mode capacitor is designed with wider gap between the terminal and the internal electrodes to help reduce the risk of short circuit in the event of capacitor cracking due to mechanical stress such as board bending.
- AEC-Q200 compliant.

Applications

- High reliability and high mechanical stress applications
- Battery line circuit with high board flex stress
- DC-DC Converter

Shape & Dimensions



L	Body Length
W	Body Width
T	Body Height
B	Terminal Width
G	Terminal Spacing

Catalog Number Construction

CGA • 4 • J • 2 • X7R • 1H • 104 • K • 125 • A • M

Series Name

Dimensions L x W (mm)

Code	Length	Width	Terminal
4	2.00 ± 0.20	1.25 ± 0.20	0.20 min.

Thickness T Code (mm)

Code	Thickness
J	1.25 mm

Voltage Condition for Life Test

Symbol	Condition
2	2 × R.V.

Temperature Characteristics

Temperature Characteristics	Capacitance Change	Temperature Range
X7R	± 15%	-55 to +125ºC
X8R	± 15%	-55 to +150ºC

Rated Voltage (DC)

Code	Voltage (DC)
1H	50V

Nominal Capacitance (pF)

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.

Ex. 0R2 = 0.2pF; 103 = 10,000pF; 105 = 1,000,000pF = 1,000nF = 1µF

Capacitance Tolerance

Code	Tolerance
K	± 10%

Nominal Thickness

Code	Thickness
125	1.25 mm

Packaging Style

Code	Style
A	178" Reel, 4mm Pitch

Special Reserved Code

Code	Description
M	Open Mode Design

Capacitance Range Chart

CGA4(2012) [EIA CC0805]

Capacitance Range Chart

Temperature Characteristics: X7R (±15%), X8R (±15%)
Rated Voltage: 50V (1H)

Capacitance (pF)	Code	Tolerance	X7R 1H (50V)	X8R 1H (50V)
47,000	473	K: ± 10%		■
68,000	683			■
100,000	104		■	

Standard Thickness
■ 1.25 mm

Capacitance Range Table

Class 2 (Temperature Stable)

Temperature Characteristics: X7R (-55 to +125ºC, ±15%)

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number Rated Voltage Edc: 50V
100 nF	2012	1.25 +0.25/-0.20	± 10%	CGA4J2X7R1H104K125AM

Class 2 (Temperature Stable)

Temperature Characteristics: X8R (-55 to +150ºC, ±15%)

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number Rated Voltage Edc: 50V
47 nF	2012	1.25 ± 0.20	± 10%	CGA4J2X8R1H473K125AM
68 nF	2012	1.25 ± 0.20	± 10%	CGA4J2X8R1H683K125AM