

Ceramic Capacitors

For Mid Voltage
SMD

C Series

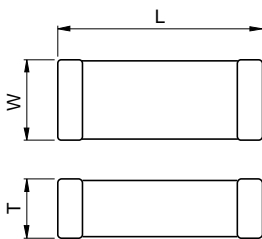
FEATURES

- The unique design structure for mid voltage enables a compact size with high voltage resistance.
- Rated voltage Edc: 100, 250 and 630V.
- C3225, C4532 and C5750 types are specific to reflow soldering.

APPLICATIONS

Snapper circuits for switching power supply, ringer circuits for telephone and modem, or other general high voltage circuits.

SHAPES AND DIMENSIONS



| Type | Dimensions in mm | | |
|-------|------------------|----------|---|
| | L | W | T |
| C1608 | 1.6±0.1 | 0.8±0.1 | 0.8±0.1 |
| C2012 | 2.0±0.2 | 1.25±0.2 | 0.6±0.1 0.85±0.15 1.25±0.2 |
| C3216 | 3.2±0.2 | 1.6±0.2 | 0.6±0.1 0.85±0.15 1.15±0.15 1.3±0.2 1.6±0.2 |
| C3225 | 3.2±0.4 | 2.5±0.3 | 1.25±0.2 1.6±0.2 2.0±0.2 |
| C4532 | 4.5±0.4 | 3.2±0.4 | 1.6±0.2 2.0±0.2 2.3±0.2 2.5±0.3 3.2±0.4 |
| C5750 | 5.7±0.4 | 5.0±0.4 | 1.6±0.2 2.3±0.2 |

PRODUCT IDENTIFICATION

| | | | | | | |
|-----|------|-----|-----|-----|-----|-----|
| C | 2012 | JB | 2E | 102 | K | □ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |

(1) Series name

(2) Dimensions

| | |
|------|------------|
| 1608 | 1.6×0.8mm |
| 2012 | 2.0×1.25mm |
| 3216 | 3.2×1.6mm |
| 3225 | 3.2×2.5mm |
| 4532 | 4.5×3.2mm |
| 5750 | 5.7×5.0mm |

(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 |

(4) Rated voltage Edc

| | |
|----|------|
| 2A | 100V |
| 2E | 250V |
| 2J | 630V |

(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.

| | |
|-----|----------|
| 102 | 100pF |
| 333 | 33000pF |
| 474 | 470000pF |

(6) Capacitance tolerance

| | |
|---|------|
| J | ±5% |
| K | ±10% |
| M | ±20% |

(7) Packaging style

| | |
|---|---------------|
| T | Taping (reel) |
| B | Bulk |

Ceramic Capacitors

For Mid Voltage
SMD

C Series

C1608 (EIA:CC0603) TYPE

CAPACITANCE RANGES:

CLASS 1 (TEMPERATURE COMPENSATION)

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

RATED VOLTAGE Edc: 250V

| Capacitance (pF) | Tolerance | Thickness (mm) | Part No. |
|------------------|-----------|----------------|----------------|
| 100 | ±5% | 0.8±0.1 | C1608C0G2E101J |
| | ±10% | 0.8±0.1 | C1608C0G2E101K |
| 120 | ±5% | 0.8±0.1 | C1608C0G2E121J |
| | ±10% | 0.8±0.1 | C1608C0G2E121K |
| 150 | ±5% | 0.8±0.1 | C1608C0G2E151J |
| | ±10% | 0.8±0.1 | C1608C0G2E151K |
| 180 | ±5% | 0.8±0.1 | C1608C0G2E181J |
| | ±10% | 0.8±0.1 | C1608C0G2E181K |
| 220 | ±5% | 0.8±0.1 | C1608C0G2E221J |
| | ±10% | 0.8±0.1 | C1608C0G2E221K |
| 270 | ±5% | 0.8±0.1 | C1608C0G2E271J |
| | ±10% | 0.8±0.1 | C1608C0G2E271K |
| 330 | ±5% | 0.8±0.1 | C1608C0G2E331J |
| | ±10% | 0.8±0.1 | C1608C0G2E331K |
| 390 | ±5% | 0.8±0.1 | C1608C0G2E391J |
| | ±10% | 0.8±0.1 | C1608C0G2E391K |
| 470 | ±5% | 0.8±0.1 | C1608C0G2E471J |
| | ±10% | 0.8±0.1 | C1608C0G2E471K |
| 560 | ±5% | 0.8±0.1 | C1608C0G2E561J |
| | ±10% | 0.8±0.1 | C1608C0G2E561K |
| 680 | ±5% | 0.8±0.1 | C1608C0G2E681J |
| | ±10% | 0.8±0.1 | C1608C0G2E681K |

CAPACITANCE RANGES:

CLASS 2

TEMPERATURE CHARACTERISTICS: X7R(±15%)

RATED VOLTAGE Edc:100V

| Capacitance (pF) | Tolerance | Thickness (mm) | Part No. |
|------------------|-----------|----------------|----------------|
| 1000 | ±10% | 0.8±0.1 | C1608X7R2A102K |
| | ±20% | 0.8±0.1 | C1608X7R2A102M |
| 1500 | ±10% | 0.8±0.1 | C1608X7R2A152K |
| | ±20% | 0.8±0.1 | C1608X7R2A152M |
| 2200 | ±10% | 0.8±0.1 | C1608X7R2A222K |
| | ±20% | 0.8±0.1 | C1608X7R2A222M |
| 3300 | ±10% | 0.8±0.1 | C1608X7R2A332K |
| | ±20% | 0.8±0.1 | C1608X7R2A332M |
| 4700 | ±10% | 0.8±0.1 | C1608X7R2A472K |
| | ±20% | 0.8±0.1 | C1608X7R2A472M |
| 6800 | ±10% | 0.8±0.1 | C1608X7R2A682K |
| | ±20% | 0.8±0.1 | C1608X7R2A682M |
| 10000 | ±10% | 0.8±0.1 | C1608X7R2A103K |
| | ±20% | 0.8±0.1 | C1608X7R2A103M |



RATED VOLTAGE Edc: 100V

| Capacitance (pF) | Tolerance | Thickness (mm) | Part No. |
|------------------|-----------|----------------|----------------|
| 100 | ±5% | 0.8±0.1 | C1608C0G2A101J |
| | ±10% | 0.8±0.1 | C1608C0G2A101K |
| 120 | ±5% | 0.8±0.1 | C1608C0G2A121J |
| | ±10% | 0.8±0.1 | C1608C0G2A121K |
| 150 | ±5% | 0.8±0.1 | C1608C0G2A151J |
| | ±10% | 0.8±0.1 | C1608C0G2A151K |
| 180 | ±5% | 0.8±0.1 | C1608C0G2A181J |
| | ±10% | 0.8±0.1 | C1608C0G2A181K |
| 220 | ±5% | 0.8±0.1 | C1608C0G2A221J |
| | ±10% | 0.8±0.1 | C1608C0G2A221K |
| 270 | ±5% | 0.8±0.1 | C1608C0G2A271J |
| | ±10% | 0.8±0.1 | C1608C0G2A271K |
| 330 | ±5% | 0.8±0.1 | C1608C0G2A331J |
| | ±10% | 0.8±0.1 | C1608C0G2A331K |
| 390 | ±5% | 0.8±0.1 | C1608C0G2A391J |
| | ±10% | 0.8±0.1 | C1608C0G2A391K |
| 470 | ±5% | 0.8±0.1 | C1608C0G2A471J |
| | ±10% | 0.8±0.1 | C1608C0G2A471K |
| 560 | ±5% | 0.8±0.1 | C1608C0G2A561J |
| | ±10% | 0.8±0.1 | C1608C0G2A561K |
| 680 | ±5% | 0.8±0.1 | C1608C0G2A681J |
| | ±10% | 0.8±0.1 | C1608C0G2A681K |
| 1000 | ±5% | 0.8±0.1 | C1608C0G2A102J |
| | ±10% | 0.8±0.1 | C1608C0G2A102K |
| 1200 | ±5% | 0.8±0.1 | C1608C0G2A122J |
| | ±10% | 0.8±0.1 | C1608C0G2A122K |

* M tolerance is standard for Mid Voltage X7R capacitors.

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

Ceramic Capacitors

For Mid Voltage SMD

C Series

C2012 (EIA:CC0805) TYPE

CAPACITANCE RANGES:

CLASS 1 (TEMPERATURE COMPENSATION)

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

RATED VOLTAGE E_{dc}: 250V

| Capacitance (pF) | Tolerance | Thickness (mm) | Part No. |
|------------------|-----------|----------------|----------------|
| 820 | ±5% | 0.6±0.1 | C2012C0G2E821J |
| | ±10% | 0.6±0.1 | C2012C0G2E821K |
| 1000 | ±5% | 0.8±0.1 | C2012C0G2E102J |
| | ±10% | 0.8±0.1 | C2012C0G2E102K |
| 1200 | ±5% | 0.8±0.1 | C2012C0G2E122J |
| | ±10% | 0.8±0.1 | C2012C0G2E122K |
| 1500 | ±5% | 0.8±0.1 | C2012C0G2E152J |
| | ±10% | 0.8±0.1 | C2012C0G2E152K |
| 1800 | ±5% | 1.25±0.2 | C2012C0G2E182J |
| | ±10% | 1.25±0.2 | C2012C0G2E182K |
| 2200 | ±5% | 1.25±0.2 | C2012C0G2E222J |
| | ±10% | 1.25±0.2 | C2012C0G2E222K |
| 2700 | ±5% | 1.25±0.2 | C2012C0G2E272J |
| | ±10% | 1.25±0.2 | C2012C0G2E272K |

RATED VOLTAGE E_{dc}: 100V

| Capacitance (pF) | Tolerance | Thickness (mm) | Part No. |
|------------------|-----------|----------------|----------------|
| 1000 | ±5% | 0.6±0.1 | C2012C0G2A102J |
| | ±10% | 0.6±0.1 | C2012C0G2A102K |
| 1200 | ±5% | 0.6±0.1 | C2012C0G2A122J |
| | ±10% | 0.6±0.1 | C2012C0G2A122K |
| 1500 | ±5% | 0.6±0.1 | C2012C0G2A152J |
| | ±10% | 0.6±0.1 | C2012C0G2A152K |
| 1800 | ±5% | 0.8±0.1 | C2012C0G2A182J |
| | ±10% | 0.8±0.1 | C2012C0G2A182K |
| 2200 | ±5% | 0.8±0.1 | C2012C0G2A222J |
| | ±10% | 0.8±0.1 | C2012C0G2A222K |
| 2700 | ±5% | 1.25±0.2 | C2012C0G2A272J |
| | ±10% | 1.25±0.2 | C2012C0G2A272K |
| 3300 | ±5% | 1.25±0.2 | C2012C0G2A332K |
| | ±10% | 1.25±0.2 | C2012C0G2A332M |
| 3900 | ±5% | 1.25±0.2 | C2012C0G2A392K |
| | ±10% | 1.25±0.2 | C2012C0G2A392M |
| 4700 | ±5% | 1.25±0.2 | C2012C0G2A472K |
| | ±10% | 1.25±0.2 | C2012C0G2A472M |

CAPACITANCE RANGES:

CLASS 2

TEMPERATURE CHARACTERISTICS: X7R(±15%)

RATED VOLTAGE E_{dc}:250V

| Capacitance (pF) | Tolerance | Thickness (mm) | Part No. |
|------------------|-----------|----------------|----------------|
| 1000 | ±10% | 0.85±0.15 | C2012X7R2E102K |
| | ±20% | 0.85±0.15 | C2012X7R2E102M |
| 1500 | ±10% | 0.85±0.15 | C2012X7R2E152K |
| | ±20% | 0.85±0.15 | C2012X7R2E152M |
| 2200 | ±10% | 0.85±0.15 | C2012X7R2E222K |
| | ±20% | 0.85±0.15 | C2012X7R2E222M |
| 3300 | ±10% | 0.85±0.15 | C2012X7R2E332K |
| | ±20% | 0.85±0.15 | C2012X7R2E332M |
| 4700 | ±10% | 0.85±0.15 | C2012X7R2E472K |
| | ±20% | 0.85±0.15 | C2012X7R2E472M |
| 6800 | ±10% | 1.25±0.2 | C2012X7R2E682K |
| | ±20% | 1.25±0.2 | C2012X7R2E682M |
| 10000 | ±10% | 1.25±0.2 | C2012X7R2E103K |
| | ±20% | 1.25±0.2 | C2012X7R2E103M |
| 15000 | ±10% | 1.25±0.2 | C2012X7R2E153K |
| | ±20% | 1.25±0.2 | C2012X7R2E153M |
| 22000 | ±10% | 1.25±0.2 | C2012X7R2E223K |
| | ±20% | 1.25±0.2 | C2012X7R2E223M |

RATED VOLTAGE E_{dc}: 100V

| Capacitance (pF) | Tolerance | Thickness (mm) | Part No. |
|------------------|-----------|----------------|----------------|
| 1000 | ±10% | 0.85±0.15 | C2012X7R2A102K |
| | ±20% | 0.85±0.15 | C2012X7R2A102M |
| 1500 | ±10% | 0.85±0.15 | C2012X7R2A152K |
| | ±20% | 0.85±0.15 | C2012X7R2A152M |
| 2200 | ±10% | 0.85±0.15 | C2012X7R2A222K |
| | ±20% | 0.85±0.15 | C2012X7R2A222M |
| 3300 | ±10% | 0.85±0.15 | C2012X7R2A332K |
| | ±20% | 0.85±0.15 | C2012X7R2A332M |
| 4700 | ±10% | 0.85±0.15 | C2012X7R2A472K |
| | ±20% | 0.85±0.15 | C2012X7R2A472M |
| 6800 | ±10% | 0.85±0.15 | C2012X7R2A682K |
| | ±20% | 0.85±0.15 | C2012X7R2A682M |
| 10000 | ±10% | 0.85±0.15 | C2012X7R2A103K |
| | ±20% | 0.85±0.15 | C2012X7R2A103M |
| 15000 | ±10% | 1.25±0.2 | C2012X7R2A153K |
| | ±20% | 1.25±0.2 | C2012X7R2A153M |
| 22000 | ±10% | 1.25±0.2 | C2012X7R2A223K |
| | ±20% | 1.25±0.2 | C2012X7R2A223M |
| 33000 | ±10% | 1.25±0.2 | C2012X7R2A333K |
| | ±20% | 1.25±0.2 | C2012X7R2A333M |
| 47000 | ±10% | 1.25±0.2 | C2012X7R2A473K |
| | ±20% | 1.25±0.2 | C2012X7R2A473M |



- * M tolerance is standard for Mid Voltage X7R capacitors.
- For more information about products with other capacitance or other data, please contact us.

Ceramic Capacitors

For Mid Voltage SMD

C Series

C3216 (EIA:CC1206) TYPE

CAPACITANCE RANGES:

CLASS 1 (TEMPERATURE COMPENSATION)

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

RATED VOLTAGE E_{dc}: 630V

| Capacitance (pF) | Tolerance | Thickness (mm) | Part No. |
|------------------|-----------|----------------|----------------|
| 100 | ±5% | 0.6±0.1 | C3216C0G2J101J |
| | ±10% | 0.6±0.1 | C3216C0G2J101K |
| 120 | ±5% | 0.6±0.1 | C3216C0G2J121J |
| | ±10% | 0.6±0.1 | C3216C0G2J121K |
| 150 | ±5% | 0.6±0.1 | C3216C0G2J151J |
| | ±10% | 0.6±0.1 | C3216C0G2J151K |
| 180 | ±5% | 0.6±0.1 | C3216C0G2J181J |
| | ±10% | 0.6±0.1 | C3216C0G2J181K |
| 220 | ±5% | 0.6±0.1 | C3216C0G2J221J |
| | ±10% | 0.6±0.1 | C3216C0G2J221K |
| 270 | ±5% | 0.6±0.1 | C3216C0G2J271J |
| | ±10% | 0.6±0.1 | C3216C0G2J271K |
| 330 | ±5% | 0.6±0.1 | C3216C0G2J331J |
| | ±10% | 0.6±0.1 | C3216C0G2J331K |
| 390 | ±5% | 0.6±0.1 | C3216C0G2J391J |
| | ±10% | 0.6±0.1 | C3216C0G2J391K |
| 470 | ±5% | 0.85±0.15 | C3216C0G2J471J |
| | ±10% | 0.85±0.15 | C3216C0G2J471K |
| 560 | ±5% | 0.85±0.15 | C3216C0G2J561J |
| | ±10% | 0.85±0.15 | C3216C0G2J561K |
| 680 | ±5% | 0.85±0.15 | C3216C0G2J681J |
| | ±10% | 0.85±0.15 | C3216C0G2J681K |
| 820 | ±5% | 0.85±0.15 | C3216C0G2J821J |
| | ±10% | 0.85±0.15 | C3216C0G2J821K |
| 1000 | ±5% | 0.85±0.15 | C3216C0G2J102J |
| | ±10% | 0.85±0.15 | C3216C0G2J102K |
| 1200 | ±5% | 0.85±0.15 | C3216C0G2J122J |
| | ±10% | 0.85±0.15 | C3216C0G2J122K |
| 1500 | ±5% | 1.15±0.15 | C3216C0G2J152J |
| | ±10% | 1.15±0.15 | C3216C0G2J152K |
| 1800 | ±5% | 1.15±0.15 | C3216C0G2J182J |
| | ±10% | 1.15±0.15 | C3216C0G2J182K |
| 2200 | ±5% | 1.15±0.15 | C3216C0G2J222J |
| | ±10% | 1.15±0.15 | C3216C0G2J222K |
| 2700 | ±5% | 1.6±0.2 | C3216C0G2J272J |
| | ±10% | 1.6±0.2 | C3216C0G2J272K |
| 3300 | ±5% | 1.6±0.2 | C3216C0G2J332J |
| | ±10% | 1.6±0.2 | C3216C0G2J332K |

RATED VOLTAGE E_{dc}: 250V

| Capacitance (pF) | Tolerance | Thickness (mm) | Part No. |
|------------------|-----------|----------------|----------------|
| 3300 | ±5% | 0.85±0.15 | C3216C0G2E332J |
| | ±10% | 0.85±0.15 | C3216C0G2E332K |
| 3900 | ±5% | 1.15±0.15 | C3216C0G2E392J |
| | ±10% | 1.15±0.15 | C3216C0G2E392K |
| 4700 | ±5% | 1.15±0.15 | C3216C0G2E472J |
| | ±10% | 1.15±0.15 | C3216C0G2E472K |
| 5600 | ±5% | 1.15±0.15 | C3216C0G2E562J |
| | ±10% | 1.15±0.15 | C3216C0G2E562K |
| 6800 | ±5% | 1.6±0.2 | C3216C0G2E682J |
| | ±10% | 1.6±0.2 | C3216C0G2E682K |
| 8200 | ±5% | 1.6±0.2 | C3216C0G2E822J |
| | ±10% | 1.6±0.2 | C3216C0G2E822K |

RATED VOLTAGE E_{dc}: 100V

| Capacitance (pF) | Tolerance | Thickness (mm) | Part No. |
|------------------|-----------|----------------|----------------|
| 3900 | ±5% | 0.6±0.1 | C3216C0G2A392J |
| | ±10% | 0.6±0.1 | C3216C0G2A392K |
| 4700 | ±5% | 0.85±0.15 | C3216C0G2A472J |
| | ±10% | 0.85±0.15 | C3216C0G2A472K |
| 5600 | ±5% | 0.85±0.15 | C3216C0G2A562J |
| | ±10% | 0.85±0.15 | C3216C0G2A562K |
| 6800 | ±5% | 1.15±0.15 | C3216C0G2A682J |
| | ±10% | 1.15±0.15 | C3216C0G2A682K |
| 8200 | ±5% | 1.15±0.15 | C3216C0G2A822J |
| | ±10% | 1.15±0.15 | C3216C0G2A822K |
| 10000 | ±5% | 1.15±0.15 | C3216C0G2A103J |
| | ±10% | 1.15±0.15 | C3216C0G2A103K |

CAPACITANCE RANGES:

CLASS 2

TEMPERATURE CHARACTERISTICS: X7R(±15%)

RATED VOLTAGE E_{dc}: 630V

| Capacitance (pF) | Tolerance | Thickness (mm) | Part No. |
|------------------|-----------|----------------|----------------|
| 1000 | ±10% | 1.15±0.15 | C3216X7R2J102K |
| | ±20% | 1.15±0.15 | C3216X7R2J102M |
| 1500 | ±10% | 1.15±0.15 | C3216X7R2J152K |
| | ±20% | 1.15±0.15 | C3216X7R2J152M |
| 2200 | ±10% | 1.15±0.15 | C3216X7R2J222K |
| | ±20% | 1.15±0.15 | C3216X7R2J222M |
| 3300 | ±10% | 1.15±0.15 | C3216X7R2J332K |
| | ±20% | 1.15±0.15 | C3216X7R2J332M |
| 4700 | ±10% | 1.15±0.15 | C3216X7R2J472K |
| | ±20% | 1.15±0.15 | C3216X7R2J472M |
| 6800 | ±10% | 1.15±0.15 | C3216X7R2J682K |
| | ±20% | 1.15±0.15 | C3216X7R2J682M |
| 10000 | ±10% | 1.15±0.15 | C3216X7R2J103K |
| | ±20% | 1.15±0.15 | C3216X7R2J103M |
| 15000 | ±10% | 1.3±0.2 | C3216X7R2J153K |
| | ±20% | 1.3±0.2 | C3216X7R2J153M |
| 22000 | ±10% | 1.3±0.2 | C3216X7R2J223K |
| | ±20% | 1.3±0.2 | C3216X7R2J223M |
| 33000 | ±10% | 1.6±0.2 | C3216X7R2J333K |
| | ±20% | 1.6±0.2 | C3216X7R2J333M |

RATED VOLTAGE E_{dc}: 250V

| Capacitance (pF) | Tolerance | Thickness (mm) | Part No. |
|------------------|-----------|----------------|----------------|
| 15000 | ±10% | 1.15±0.15 | C3216X7R2E153K |
| | ±20% | 1.15±0.15 | C3216X7R2E153M |
| 22000 | ±10% | 1.15±0.15 | C3216X7R2E223K |
| | ±20% | 1.15±0.15 | C3216X7R2E223M |
| 33000 | ±10% | 1.6±0.2 | C3216X7R2E333K |
| | ±20% | 1.6±0.2 | C3216X7R2E333M |
| 47000 | ±10% | 1.6±0.2 | C3216X7R2E473K |
| | ±20% | 1.6±0.2 | C3216X7R2E473M |
| 68000 | ±10% | 1.6±0.2 | C3216X7R2E683K |
| | ±20% | 1.6±0.2 | C3216X7R2E683M |
| 100000 | ±10% | 1.6±0.2 | C3216X7R2E104K |
| | ±20% | 1.6±0.2 | C3216X7R2E104M |

* M tolerance is standard for Mid Voltage X7R capacitors.

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

Ceramic Capacitors

For Mid Voltage SMD

C Series

TEMPERATURE CHARACTERISTICS: X7R($\pm 15\%$)

RATED VOLTAGE Edc: 100V

| Capacitance (μF) | Tolerance | Thickness (mm) | Part No. |
|----------------------------------|------------|-------------------|----------------|
| 33000 | $\pm 10\%$ | 1.15 ± 0.15 | C3216X7R2A333K |
| | $\pm 20\%$ | 1.15 ± 0.15 | C3216X7R2A333M |
| 47000 | $\pm 10\%$ | 1.15 ± 0.15 | C3216X7R2A473K |
| | $\pm 20\%$ | 1.15 ± 0.15 | C3216X7R2A473M |
| 68000 | $\pm 10\%$ | 1.6 ± 0.2 | C3216X7R2A683K |
| | $\pm 20\%$ | 1.6 ± 0.2 | C3216X7R2A683M |
| 100000 | $\pm 10\%$ | 1.6 ± 0.2 | C3216X7R2A104K |
| | $\pm 20\%$ | 1.6 ± 0.2 | C3216X7R2A104M |
| 150000 | $\pm 10\%$ | 1.6 ± 0.2 | C3216X7R2A154K |
| | $\pm 20\%$ | 1.6 ± 0.2 | C3216X7R2A154M |



- * M tolerance is standard for Mid Voltage X7R capacitors.
- For more information about products with other capacitance or other data, please contact us.

Ceramic Capacitors

For Mid Voltage SMD

C Series

C3225 (EIA:CC1210) TYPE

CAPACITANCE RANGES:

CLASS 1 (TEMPERATURE COMPENSATION)

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

RATED VOLTAGE Edc: 630V

| Capacitance (pF) | Tolerance | Thickness (mm) | Part No. |
|------------------|-----------|----------------|----------------|
| 3900 | ±5% | 1.25±0.2 | C3225C0G2J392J |
| | ±10% | 1.25±0.2 | C3225C0G2J392K |
| 4700 | ±5% | 1.6±0.2 | C3225C0G2J472J |
| | ±10% | 1.6±0.2 | C3225C0G2J472K |
| 5600 | ±5% | 1.6±0.2 | C3225C0G2J562J |
| | ±10% | 1.6±0.2 | C3225C0G2J562K |
| 6800 | ±5% | 2.0±0.2 | C3225C0G2J682J |
| | ±10% | 2.0±0.2 | C3225C0G2J682K |

RATED VOLTAGE Edc: 250V

| Capacitance (pF) | Tolerance | Thickness (mm) | Part No. |
|------------------|-----------|----------------|----------------|
| 10000 | ±5% | 1.6±0.2 | C3225C0G2E103J |
| | ±10% | 1.6±0.2 | C3225C0G2E103K |
| 15000 | ±5% | 2.0±0.2 | C3225C0G2E153J |
| | ±10% | 2.0±0.2 | C3225C0G2E153K |

RATED VOLTAGE Edc: 100V

| Capacitance (pF) | Tolerance | Thickness (mm) | Part No. |
|------------------|-----------|----------------|----------------|
| 15000 | ±5% | 1.25±0.2 | C3225C0G2A153J |
| | ±10% | 1.25±0.2 | C3225C0G2A153K |
| 22000 | ±5% | 1.6±0.2 | C3225C0G2A223J |
| | ±10% | 1.6±0.2 | C3225C0G2A223K |
| 33000 | ±5% | 2.0±0.2 | C3225C0G2A333J |
| | ±10% | 2.0±0.2 | C3225C0G2A333K |

CAPACITANCE RANGES:

CLASS 2

TEMPERATURE CHARACTERISTICS: X7R(±15%)

RATED VOLTAGE Edc:630V

| Capacitance (pF) | Tolerance | Thickness (mm) | Part No. |
|------------------|-----------|----------------|----------------|
| 47000 | ±10% | 2.0±0.2 | C3225X7R2J473K |
| | ±20% | 2.0±0.2 | C3225X7R2J473M |
| 68000 | ±10% | 2.0±0.2 | C3225X7R2J683K |
| | ±20% | 2.0±0.2 | C3225X7R2J683M |

RATED VOLTAGE Edc:250V

| Capacitance (pF) | Tolerance | Thickness (mm) | Part No. |
|------------------|-----------|----------------|----------------|
| 100000 | ±10% | 2.0±0.2 | C3225X7R2E104K |
| | ±20% | 2.0±0.2 | C3225X7R2E104M |
| 150000 | ±10% | 2.0±0.2 | C3225X7R2E154K |
| | ±20% | 2.0±0.2 | C3225X7R2E154M |
| 220000 | ±10% | 2.0±0.2 | C3225X7R2E224K |
| | ±20% | 2.0±0.2 | C3225X7R2E224M |

RATED VOLTAGE Edc:100V

| Capacitance (pF) | Tolerance | Thickness (mm) | Part No. |
|------------------|-----------|----------------|----------------|
| 330000 | ±10% | 2.0±0.2 | C3225X7R2A334K |
| | ±20% | 2.0±0.2 | C3225X7R2A334M |
| 470000 | ±10% | 2.0±0.2 | C3225X7R2A474K |
| | ±20% | 2.0±0.2 | C3225X7R2A474M |



Ceramic Capacitors

For Mid Voltage
SMD

C Series

C4532 (EIA:CC1812) TYPE

CAPACITANCE RANGES:

CLASS 1 (TEMPERATURE COMPENSATION)

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

RATED VOLTAGE Edc: 630V

| Capacitance (pF) | Tolerance | Thickness (mm) | Part No. |
|------------------|-----------|----------------|----------------|
| 8200 | ±5% | 1.6±0.2 | C4532C0G2J822J |
| | ±10% | 1.6±0.2 | C4532C0G2J822K |
| 10000 | ±5% | 1.6±0.2 | C4532C0G2J103J |
| | ±10% | 1.6±0.2 | C4532C0G2J103K |
| 15000 | ±5% | 2.5±0.3 | C4532C0G2J153J |
| | ±10% | 2.5±0.3 | C4532C0G2J153K |
| 22000 | ±5% | 3.2±0.3 | C4532C0G2J223J |
| | ±10% | 3.2±0.3 | C4532C0G2J223K |

RATED VOLTAGE Edc: 250V

| Capacitance (pF) | Tolerance | Thickness (mm) | Part No. |
|------------------|-----------|----------------|----------------|
| 22000 | ±5% | 1.6±0.2 | C4532C0G2E223J |
| | ±10% | 1.6±0.2 | C4532C0G2E223K |
| 33000 | ±5% | 2.0±0.2 | C4532C0G2E333J |
| | ±10% | 2.0±0.2 | C4532C0G2E333K |
| 47000 | ±5% | 3.2±0.3 | C4532C0G2E473J |
| | ±10% | 3.2±0.3 | C4532C0G2E473K |

RATED VOLTAGE Edc: 100V

| Capacitance (pF) | Tolerance | Thickness (mm) | Part No. |
|------------------|-----------|----------------|----------------|
| 47000 | ±5% | 2.0±0.2 | C4532C0G2A473J |
| | ±10% | 2.0±0.2 | C4532C0G2A473K |
| 68000 | ±5% | 2.5±0.3 | C4532C0G2A683J |
| | ±10% | 2.5±0.3 | C4532C0G2A683K |
| 100000 | ±5% | 3.2±0.4 | C4532C0G2A104J |
| | ±10% | 3.2±0.4 | C4532C0G2A104K |

CAPACITANCE RANGES:

CLASS 2

TEMPERATURE CHARACTERISTICS: X7R(±15%)

RATED VOLTAGE Edc:630V

| Capacitance (pF) | Tolerance | Thickness (mm) | Part No. |
|------------------|-----------|----------------|----------------|
| 68000 | ±10% | 1.6±0.2 | C4532X7R2J683K |
| | ±20% | 1.6±0.2 | C4532X7R2J683M |
| 100000 | ±10% | 2.3±0.2 | C4532X7R2J104K |
| | ±20% | 2.3±0.2 | C4532X7R2J104M |

RATED VOLTAGE Edc:250V

| Capacitance (pF) | Tolerance | Thickness (mm) | Part No. |
|------------------|-----------|----------------|----------------|
| 150000 | ±10% | 1.6±0.2 | C4532X7R2E154K |
| | ±20% | 1.6±0.2 | C4532X7R2E154M |
| 220000 | ±10% | 2.3±0.2 | C4532X7R2E224K |
| | ±20% | 2.3±0.2 | C4532X7R2E224M |
| 330000 | ±10% | 2.3±0.2 | C4532X7R2E334K |
| | ±20% | 2.3±0.2 | C4532X7R2E334M |
| 470000 | ±10% | 2.3±0.2 | C4532X7R2E474K |
| | ±20% | 2.3±0.2 | C4532X7R2E474M |

RATED VOLTAGE Edc:100V

| Capacitance (pF) | Tolerance | Thickness (mm) | Part No. |
|------------------|-----------|----------------|----------------|
| 680000 | ±10% | 2.3±0.2 | C4532X7R2A684K |
| | ±20% | 2.3±0.2 | C4532X7R2A684M |
| 1000000 [1μF] | ±10% | 2.3±0.2 | C4532X7R2A105K |
| | ±20% | 2.3±0.2 | C4532X7R2A105M |



- * M tolerance is standard for Mid Voltage X7R capacitors.
- For more information about products with other capacitance or other data, please contact us.

Ceramic Capacitors

For Mid Voltage SMD

C Series

C5750 (EIA:CC2220) TYPE

CAPACITANCE RANGES:

CLASS 2

TEMPERATURE CHARACTERISTICS: X7R($\pm 15\%$)

RATED VOLTAGE Edc:630V

| Capacitance (pF) | Tolerance | Thickness (mm) | Part No. |
|------------------|------------|----------------|----------------|
| 150000 | $\pm 10\%$ | 1.6 ± 0.2 | C5750X7R2J154K |
| | $\pm 20\%$ | 1.6 ± 0.2 | C5750X7R2J154M |
| 220000 | $\pm 10\%$ | 2.3 ± 0.2 | C5750X7R2J224K |
| | $\pm 20\%$ | 2.3 ± 0.2 | C5750X7R2J224M |

RATED VOLTAGE Edc:250V

| Capacitance (pF) | Tolerance | Thickness (mm) | Part No. |
|------------------------|------------|----------------|----------------|
| 330000 | $\pm 10\%$ | 1.6 ± 0.2 | C5750X7R2E334K |
| | $\pm 20\%$ | 1.6 ± 0.2 | C5750X7R2E334M |
| 470000 | $\pm 10\%$ | 2.3 ± 0.2 | C5750X7R2E474K |
| | $\pm 20\%$ | 2.3 ± 0.2 | C5750X7R2E474M |
| 680000 | $\pm 10\%$ | 2.3 ± 0.2 | C5750X7R2E684K |
| | $\pm 20\%$ | 2.3 ± 0.2 | C5750X7R2E684M |
| 1000000 [1 μ F] | $\pm 10\%$ | 2.3 ± 0.2 | C5750X7R2E105K |
| | $\pm 20\%$ | 2.3 ± 0.2 | C5750X7R2E105M |

RATED VOLTAGE Edc:100V

| Capacitance (pF) | Tolerance | Thickness (mm) | Part No. |
|--------------------------|------------|----------------|----------------|
| 680000 | $\pm 10\%$ | 1.6 ± 0.2 | C5750X7R2A684K |
| | $\pm 20\%$ | 1.6 ± 0.2 | C5750X7R2A684M |
| 1000000 [1 μ F] | $\pm 10\%$ | 2.3 ± 0.2 | C5750X7R2A105K |
| | $\pm 20\%$ | 2.3 ± 0.2 | C5750X7R2A105M |
| 1500000 [1.5 μ F] | $\pm 10\%$ | 2.3 ± 0.2 | C5750X7R2A155K |
| | $\pm 20\%$ | 2.3 ± 0.2 | C5750X7R2A155M |
| 2200000 [2.2 μ F] | $\pm 10\%$ | 2.3 ± 0.2 | C5750X7R2A225K |
| | $\pm 20\%$ | 2.3 ± 0.2 | C5750X7R2A225M |



- * M tolerance is standard for Mid Voltage X7R capacitors.
- For more information about products with other capacitance or other data, please contact us.