

● Part Numbering

Radial Lead Type Monolithic Ceramic Capacitors

(Part Number)

| | | | | | | | | | |
|----|---|----|----|-----|---|---|----|-----|---|
| RP | E | R7 | 1H | 104 | K | 2 | M1 | A03 | A |
| ① | ② | ③ | ④ | ⑤ | ⑥ | ⑦ | ⑧ | ⑨ | ⑩ |

① Product ID

② Series/Terminal

| Product ID | Series/Terminal | |
|------------|-----------------|---|
| RP | E | Radial Lead Type Monolithic Ceramic Capacitors (DC25V-DC100V) |
| RH | E/D | Radial Lead Type Monolithic Ceramic Capacitors 150°C max. (for Automotive) (DC50V-DC100V) |
| RD | E | Radial Lead Type Monolithic Ceramic Capacitors (Only for Commercial Use) (DC25V-DC1kV) |

③ Temperature Characteristics

| Code | Temperature Characteristics | Reference Temperature | Temperature Range | Capacitance Change or Temperature Coefficient | Operating Temperature Range |
|------|-----------------------------|-----------------------|-------------------|---|-----------------------------|
| 5C | C0G* | 25°C | 25 to 125°C | 0±30ppm/°C | -55 to 125°C |
| 5G | X8G* | 25°C | 25 to 150°C | 0±30ppm/°C | -55 to 150°C |
| C7 | X7S | 25°C | -55 to 125°C | ±22% | -55 to 125°C |
| D7 | X7T | 25°C | -55 to 125°C | +22, -33% | -55 to 125°C |
| E4 | Z5U | 25°C | 10 to 85°C | +22, -56% | 10 to 85°C |
| F1 | F | 20°C | -25 to 85°C | +30, -80% | -25 to 85°C |
| F5 | Y5V | 25°C | -30 to 85°C | +22, -82% | -30 to 85°C |
| L8 | X8L | 25°C | -55 to 125°C | ±15% | -55 to 150°C |
| | | | 125 to 150°C | +15, -40% | |
| R7 | X7R | 25°C | -55 to 125°C | ±15% | -55 to 125°C |

* Please refer to table for Capacitance change under reference temperature.

• Capacitance change from each temperature

| Char. | Nominal Values (ppm/°C) *1 | Capacitance Change from 25°C (%) | | | | | |
|-------|----------------------------|----------------------------------|-------|-------|-------|-------|-------|
| | | -55°C | | -30°C | | -10°C | |
| | | Max. | Min. | Max. | Min. | Max. | Min. |
| C0G | 0±30 | 0.58 | -0.24 | 0.40 | -0.17 | 0.25 | -0.11 |
| X8G | | | | | | | |

*1: Nominal values denote the temperature coefficient within a range of 25 to 125°C.

④ Rated Voltage


| Code | Rated Voltage |
|------|---------------|
| 1E | DC25V |
| 1H | DC50V |
| 2A | DC100V |
| 2E | DC250V |
| 2W | DC450V |
| 2J | DC630V |
| 3A | DC1kV |


⑤ Capacitance

Expressed by three figures. The unit is pico-farad (pF). The first and second figures are significant digits, and the third figure expresses the number of zeros that follow the two numbers. If there is a decimal point, it is expressed by the capital letter "R." In this case, all figures are significant digits.

⑥ Capacitance Tolerance

| Code | Capacitance Tolerance | Temperature Characteristics | Capacitance Step |
|------|-----------------------|-----------------------------|---------------------|
| C | ±0.25pF | C0G/X8G | ≤5pF : 1pF Step |
| D | ±0.5pF | | 6 to 9pF : 1pF Step |
| J | ±5% | | ≥10 : E12 Series |
| K | ±10% | X7S/X7T/X7R/ X8L | E6 Series |
| M | ±20% | X7S/X7T/Z5U/ X7R/X8L | E3 Series |
| Z | +80%, -20% | F/Y5V | E3 Series |

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7 Dimensions (LxW)

| Code | Dimensions (LxW) |
|----------|--|
| 0 | 4.0×3.5mm or 5.0×3.5mm (Depends on Part Number List) |
| 1 | 4.0×3.5mm or 4.5×3.5mm or 5.0×3.5mm (Depends on Part Number List) |
| 2 | 5.0×3.5mm or 5.5×4.0mm or 5.7×4.5mm (Depends on Part Number List) |
| 3 | 5.0×4.5mm or 5.5×5.0mm or 6.0×5.5mm (Depends on Part Number List) |
| 4 | 7.5×5.0mm |
| 5 | 7.5×7.5mm (DC630V, DC1kV: 7.5×8.0mm) |
| 6 | 10.0×10.0mm |
| 7 | 12.5×12.5mm |
| 8 | 7.5×5.5mm |
| U | 7.7×12.5mm (DC630V, DC1kV: 7.7×13.0mm) |
| W | 5.5×7.5mm |

8 Lead Style

| Code | Lead Style | Lead Spacing |
|--------------|----------------------|--------------|
| A1/A2 | Straight Long | 2.5mm |
| B1 | Straight Long | 5.0mm |
| C1 | Straight Long | 10.0mm |
| DB | Straight Taping | 2.5mm |
| E1/E2 | Straight Taping | 5.0mm |
| K1 | Inside Crimp | 5.0mm |
| M1/M2 | Inside Crimp Taping | 5.0mm |
| P1 | Outside Crimp | 2.5mm |
| S1/S2 | Outside Crimp Taping | 2.5mm |

Lead distance between reference and bottom planes.

M1, S1 : H₀ = 16.0±0.5mm

M2, S2 : H₀ = 20.0±0.5mm

E1 : H = 17.5±0.5mm

E2 : H = 20.0±0.5mm

9 Individual Specification Code

Expressed by three figures

10 Packaging

| Code | Packaging |
|----------|-----------|
| A | Ammo Pack |
| B | Bulk |