

## ● 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/<br>X8L         | E6 Series           |
| M    | ±20%                  | X7S/X7T/Z5U/<br>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<br>(Depends on Part Number List)              |
| 1    | 4.0×3.5mm or 4.5×3.5mm or 5.0×3.5mm<br>(Depends on Part Number List) |
| 2    | 5.0×3.5mm or 5.5×4.0mm or 5.7×4.5mm<br>(Depends on Part Number List) |
| 3    | 5.0×4.5mm or 5.5×5.0mm or 6.0×5.5mm<br>(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 : H<sub>0</sub> = 16.0±0.5mm

M2, S2 : H<sub>0</sub> = 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      |