

## ● 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           |

Continued on the following page. 

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**⑦ Dimensions (LxW)**

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

**⑧ Lead Style**

| Code         | Lead Style           | Lead Spacing |
|--------------|----------------------|--------------|
| <b>A1/A2</b> | Straight Long        | 2.5mm        |
| <b>B1</b>    | Straight Long        | 5.0mm        |
| <b>C1</b>    | Straight Long        | 10.0mm       |
| <b>DB</b>    | Straight Taping      | 2.5mm        |
| <b>E1/E2</b> | Straight Taping      | 5.0mm        |
| <b>K1</b>    | Inside Crimp         | 5.0mm        |
| <b>M1/M2</b> | Inside Crimp Taping  | 5.0mm        |
| <b>P1</b>    | Outside Crimp        | 2.5mm        |
| <b>S1/S2</b> | 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 |
|----------|-----------|
| <b>A</b> | Ammo Pack |
| <b>B</b> | Bulk      |

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|-------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|
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| <a href="#"><u>RPER72A225K7C1F02B</u></a> | <a href="#"><u>RPEF51H224Z2K1C11B</u></a> | <a href="#"><u>RPER72A185K7C1F02B</u></a> | <a href="#"><u>RPER71H104K2K1C11B</u></a> |
| <a href="#"><u>RPEF51H685Z7C1F02B</u></a> | <a href="#"><u>RPER71H335K7C1F03B</u></a> | <a href="#"><u>RPEF51H224Z2S2C11A</u></a> | <a href="#"><u>RPEF51H104Z2P1C11B</u></a> |
| <a href="#"><u>RPEF51H224Z2S1C11A</u></a> | <a href="#"><u>RPEF51H224Z2P1C11B</u></a> | <a href="#"><u>RPER72A155K7C1D03B</u></a> | <a href="#"><u>RPE5C2A220J2P1Z03B</u></a> |
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| <a href="#"><u>RPEF51H224Z2M2C11A</u></a> | <a href="#"><u>RPER72A125K7C1F02B</u></a> | <a href="#"><u>RPER72A155K7C1F03B</u></a> | <a href="#"><u>RDER72E154K8K1C11B</u></a> |
| <a href="#"><u>RDER72E154K8M1C11A</u></a> | <a href="#"><u>RDER72E224K8M1C11A</u></a> | <a href="#"><u>RDER72J683K8K1C11B</u></a> | <a href="#"><u>RDER72J683K8M1C11A</u></a> |
| <a href="#"><u>RDED72E224K8M1C11A</u></a> | <a href="#"><u>RDED72E334K8M1C11A</u></a> | <a href="#"><u>RDED72J683K8M1C11A</u></a> | <a href="#"><u>RDED72W154K8M1C11A</u></a> |
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| <a href="#"><u>RDED72J683K8K1C11B</u></a> | <a href="#"><u>RDED72E334K8K1C11B</u></a> | <a href="#"><u>RDED72W154K8K1C11B</u></a> | <a href="#"><u>RDED72E224K8K1C11B</u></a> |