### Part Numbering

### Radial Lead Type Monolithic Ceramic Capacitors

(Part Number)

RP E R7 1H 104 K 2 M1 A03 A

#### 1 Product ID

#### 2Series/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
<b>C7</b>	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	X8L 25°C	-55 to 125°C	±15%	-55 to 150°C
			125 to 150°C	+15, -40%	-55 to 150°C
R7	X7R	25°C	-55 to 125°C	±15%	-55 to 125°C

<sup>\*</sup> Please refer to table for Capacitance change under reference temperature.

Capacitance change from each temperature

·		Capacitance Change from 25°C (%)					
Char.	Nominal Values (ppm/°C) *1	-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	0±30	0.56	-0.24	0.40	-0.17	0.25	-0.11

<sup>\*1:</sup> 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	

#### 6 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	
	Tolerance	Characteristics	Sieb	
С	±0.25pF		≦5pF : 1pF Step	
D	±0.5pF	C0G/X8G	6 to 9pF : 1pF Step	
J	±5%		≥10 : E12 Series	
К	±10%	X7S/X7T/X7R/ X8L	E6 Series	
М	±20%	X7S/X7T/Z5U/ X7R/X8L	E3 Series	
Z	+80%, -20%	F/Y5V	E3 Series	

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### Dimensions (LxW)

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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.

 $\begin{array}{l} M1,\,S1:H0=16.0\pm0.5mm\\ M2,\,S2:H0=20.0\pm0.5mm\\ E1:H=17.5\pm0.5mm\\ E2:H=20.0\pm0.5mm \end{array}$ 

## Individual Specification Code Expressed by three figures

# Packaging

Code	Packaging
Α	Ammo Pack
В	Bulk