

## ● Part Numbering

### Chip Monolithic Ceramic Capacitors

(Part Number)

<b>GC</b>	<b>M</b>	<b>18</b>	<b>8</b>	<b>R7</b>	<b>1H</b>	<b>102</b>	<b>K</b>	<b>A37</b>	<b>D</b>
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩

#### ① Product ID

#### ② Series

Product ID	Code	Series
<b>GC</b>	<b>J</b>	Soft Termination Type Power-train, Safety Equipment
	<b>M</b>	Power-train, Safety Equipment
	<b>3</b>	Large Capacitance and High Allowable Ripple Current Power-train, Safety Equipment

#### ③ Dimension (L×W)

Code	Dimension (L×W)	EIA
<b>03</b>	0.6×0.3mm	0201
<b>15</b>	1.0×0.5mm	0402
<b>18</b>	1.6×0.8mm	0603
<b>21</b>	2.0×1.25mm	0805
<b>31</b>	3.2×1.6mm	1206
<b>32</b>	3.2×2.5mm	1210
<b>43</b>	4.5×3.2mm	1812
<b>55</b>	5.7×5.0mm	2220

#### ④ Dimension (T)

Code	Dimension (T)
<b>3</b>	0.3mm
<b>5</b>	0.5mm
<b>6</b>	0.6mm
<b>8</b>	0.8mm
<b>9</b>	0.85mm
<b>A</b>	1.0mm
<b>B</b>	1.25mm
<b>C</b>	1.6mm
<b>D</b>	2.0mm
<b>E</b>	2.5mm
<b>M</b>	1.15mm
<b>N</b>	1.35mm
<b>Q</b>	1.5mm
<b>R</b>	1.8mm
<b>X</b>	Depends on individual standards.

#### ⑤ Temperature Characteristics

Temperature Characteristic Codes			Temperature Characteristics			Operating Temperature Range
Code	Public STD Code		Reference Temperature	Temperature Range	Capacitance Change or Temperature Coefficient	
<b>5C</b>	C0G	EIA	25°C	25 to 125°C	0±30ppm/°C	-55 to 125°C
<b>7U</b>	U2J	EIA	25°C	25 to 125°C	-750±120ppm/°C	-55 to 125°C
<b>C7</b>	X7S	EIA	25°C	-55 to 125°C	±22%	-55 to 125°C
<b>D7</b>	X7T	EIA	25°C	-55 to 125°C	+22, -33%	-55 to 125°C
<b>R7</b>	X7R	EIA	25°C	-55 to 125°C	±15%	-55 to 125°C

#### ● Capacitance Change from each temperature

Murata Code	Capacitance Change from 25°C (%)					
	-55°C		-30°C		-10°C	
	Max.	Min.	Max.	Min.	Max.	Min.
<b>5C</b>	0.58	-0.24	0.40	-0.17	0.25	-0.11
<b>7U</b>	8.78	5.04	6.04	3.47	3.84	2.21

#### ⑥ Rated Voltage

Code	Rated Voltage
<b>0J</b>	DC6.3V
<b>1A</b>	DC10V
<b>1C</b>	DC16V
<b>1E</b>	DC25V
<b>YA</b>	DC35V
<b>1H</b>	DC50V
<b>2A</b>	DC100V
<b>2E</b>	DC250V
<b>2W</b>	DC450V
<b>2J</b>	DC630V
<b>3A</b>	DC1kV

#### ⑦ Capacitance

Expressed by three-digit alphanumerics. 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.

Ex.)	Code	Capacitance
	<b>R50</b>	0.5pF
	<b>1R0</b>	1.0pF
	<b>100</b>	10pF
	<b>103</b>	10000pF

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③ Capacitance Tolerance

Code	Capacitance Tolerance	TC	Series	Capacitance Step	
<b>C</b>	±0.25pF	C0G	<b>GCM</b>	≤5.0pF	E12, 1pF Step *
<b>D</b>	±0.5pF	C0G	<b>GCM</b>	6.0 to 9.0pF	E12, 1pF Step *
<b>J</b>	±5%	C0G	<b>GCM</b>	≥10pF	E12 Step
		U2J	<b>GCM</b>		E12 Step
<b>K</b>	±10%	X7S, X7T, X7R	<b>GCJ/GCM/GC3</b>		E6 Step
<b>M</b>	±20%	X7S, X7R	<b>GCM</b>		E6 Step

\* E24 series is also available.

⑨ Individual Specification Code

Expressed by three figures.

⑩ Package

Code	Package
<b>L</b>	ø180mm Embossed Taping
<b>D</b>	ø180mm Paper Taping
<b>K</b>	ø330mm Embossed Taping
<b>J</b>	ø330mm Paper Taping
<b>B</b>	Bulk
<b>C</b>	Bulk Case

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