

● Part Numbering

Chip Monolithic Ceramic Capacitors

(Part Number)

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

① Product ID

② Series

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

③ Dimension (L×W)

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

④ Dimension (T)

Code	Dimension (T)
3	0.3mm
5	0.5mm
6	0.6mm
8	0.8mm
9	0.85mm
A	1.0mm
B	1.25mm
C	1.6mm
D	2.0mm
E	2.5mm
M	1.15mm
N	1.35mm
Q	1.5mm
R	1.8mm
X	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	
5C	C0G	EIA	25°C	25 to 125°C	0±30ppm/°C	-55 to 125°C
7U	U2J	EIA	25°C	25 to 125°C	-750±120ppm/°C	-55 to 125°C
C7	X7S	EIA	25°C	-55 to 125°C	±22%	-55 to 125°C
D7	X7T	EIA	25°C	-55 to 125°C	+22, -33%	-55 to 125°C
R7	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.
5C	0.58	-0.24	0.40	-0.17	0.25	-0.11
7U	8.78	5.04	6.04	3.47	3.84	2.21

⑥ Rated Voltage

Code	Rated Voltage
0J	DC6.3V
1A	DC10V
1C	DC16V
1E	DC25V
YA	DC35V
1H	DC50V
2A	DC100V
2E	DC250V
2W	DC450V
2J	DC630V
3A	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
	R50	0.5pF
	1R0	1.0pF
	100	10pF
	103	10000pF

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⑧ Capacitance Tolerance

Code	Capacitance Tolerance	TC	Series	Capacitance Step	
C	$\pm 0.25\text{pF}$	C0G	GCM	$\leq 5.0\text{pF}$	E12, 1pF Step *
D	$\pm 0.5\text{pF}$	C0G	GCM	6.0 to 9.0pF	E12, 1pF Step *
J	$\pm 5\%$	C0G	GCM	$\geq 10\text{pF}$	E12 Step
		U2J	GCM	E12 Step	
K	$\pm 10\%$	X7S, X7T, X7R	GCJ/GCM/GC3	E6 Step	
M	$\pm 20\%$	X7S, X7R	GCM	E6 Step	

* E24 series is also available.

⑨ Individual Specification Code

Expressed by three figures.

⑩ Package

Code	Package
L	ø180mm Embossed Taping
D	ø180mm Paper Taping
K	ø330mm Embossed Taping
J	ø330mm Paper Taping
B	Bulk
C	Bulk Case