Part Numbering

Chip Multilayer Ceramic Capacitors for Automotive

(Part Number)

GCM	18	8	R7	1H	102	K	A37	D
❶	❷	❸	❹	❺	❻	❼	❽	❾

❶Series

Code	Series
GC3	High Effective Capacitance & High Ripple Current Chip Multilayer Ceramic Capacitors for Automotive (Powertrain/Safety)
GCD	MLSC Design Chip Multilayer Ceramic Capacitors for Automotive (Powertrain/Safety)
GCE	Soft Termination MLSC Design Chip Multilayer Ceramic Capacitors for Automotive (Powertrain/Safety)
GCG	AgPd Termination Conductive Glue Mounting Chip Multilayer Ceramic Capacitors for Automotive (Powertrain/Safety)
GCJ	Soft Termination Chip Multilayer Ceramic Capacitors for Automotive (Powertrain/Safety)
GCM	Chip Multilayer Ceramic Capacitors for Automotive (Powertrain/Safety)
GCQ	High Q Chip Multilayer Ceramic Capacitors for Automotive (Powertrain/Safety) & Automotive (Infortainment/Confort)
GGM	Water Repellent Chip Multilayer Ceramic Capacitors for Automotive (Powertrain/Safety)
GGD	Water Repellent MLSC Design Chip Multilayer Ceramic Capacitors for Automotive (Powertrain/Safety)
GRT	AEC-Q200 Compliant Chip Multilayer Ceramic Capacitors for Automotive (Infortainment/Confort) & Industrial Equipment
GXT	AEC-Q200 Compliant Water Repellent Chip Multilayer Ceramic Capacitors for Automotive (Infortainment/Confort)
KC3	High Effective Capacitance & High Allowable Ripple Current Metal Terminal Type Multilayer Ceramic Capacitors for Automotive (Powertrain/Safety)
KCM	Metal Terminal Type Multilayer Ceramic Capacitors for Automotive (Powertrain/Safety)
KRT	AEC-Q200 Compliant Metal Terminal Type Multilayer Ceramic Capacitors for Automotive (Infotainment/Comfort) & Industrial Equipment
LLC	LW Reversed Low ESL Chip Multilayer Ceramic Capacitors for Automotive (Powertrain/Safety)

❷Chip Dimension (L x W)

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

❸Height Dimension (T)

Except KC□/KRT		KC□/KRT Only	
Code	Dimension (T)	Code	Dimension (T)
2	0.2mm	K	2.7mm
3	0.3mm	L	2.8mm
5	0.5mm	R	3.6mm
6	0.6mm	Q	3.7mm
8	0.8mm	T	4.8mm
9	0.85mm	V	6.2mm
A	1.0mm	W	6.4mm
B	1.25mm		
C	1.6mm		
D	2.0mm		
E	2.5mm		
M	1.15mm		
N	1.35mm		
Q	1.5mm		
S	0.16mm		
X	Depends on individual standards.		

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❹Temperature Characteristics

Temperature Characteristic Codes			Temperature Characteristics			Operating Temperature Range	Capacitance Change Each Temperature (%)					
							−55°C		*3		−10°C	
Code	Public STD Code		Reference Temperature	Temperature Range	Capacitance Change or Temperature Coefficient		Max.	Min.	Max.	Min.	Max.	Min.
0C	CHA	*1	20°C	20 to 150°C	0±60ppm/°C	−55 to 150°C	0.82	−0.45	0.49	−0.27	0.33	−0.18
2C	CH	JIS	20°C	20 to 125°C	0±60ppm/°C	−55 to 125°C	0.82	−0.45	0.49	−0.27	0.33	−0.18
3C	CJ	JIS	20°C	20 to 125°C	0±120ppm/°C	−55 to 125°C	1.37	−0.9	0.82	−0.54	0.55	−0.36
4C	CK	JIS	20°C	20 to 125°C	0±250ppm/°C	−55 to 125°C	2.56	−1.88	1.54	−1.13	1.02	−0.75
5C	C0G	EIA	25°C	25 to 125°C	0±30ppm/°C	−55 to 125°C	0.58	−0.24	0.4	−0.17	0.25	−0.11
5G	X8G	*1	25°C	25 to 150°C	0±30ppm/°C	−55 to 150°C	0.58	−0.24	0.4	−0.17	0.25	−0.11
7U	U2J	EIA	25°C	25 to 125°C *2	−750±120ppm/°C	−55 to 125°C	8.78	5.04	6.04	3.47	3.84	2.21
9E	ZLM	*1	20°C	−55 to −40°C	-4700+1000/-2500ppm/°C	−55 to 125°C	-	-	-	-	-	-
				−40 to 20°C	−5350±750ppm/°C		-	-	-	-	-	-
				20 to 85°C	−4700±500ppm/°C		-	-	-	-	-	-
				85 to 125°C	-4700+2000/-1000ppm/°C		-	-	-	-	-	-
C7	X7S	EIA	25°C	−55 to 125°C	±22%	−55 to 125°C	-	-	-	-	-	-
C8	X6S	EIA	25°C	−55 to 105°C	±22%	−55 to 105°C	-	-	-	-	-	-
D7	X7T	EIA	25°C	−55 to 125°C	+22%, −33%	−55 to 125°C	-	-	-	-	-	-
L8	X8L	*1	25°C	−55 to 150°C	+15%, −40%	−55 to 150°C	-	-	-	-	-	-
M8	X8M	*1	25°C	−55 to 150°C	+15%, −50%	−55 to 150°C	-	-	-	-	-	-
N8	X8N	*1	25°C	−55 to 150°C	+15%, −60%	−55 to 150°C	-	-	-	-	-	-
R6	X5R	EIA	25°C	−55 to 85°C	±15%	−55 to 85°C	-	-	-	-	-	-
R7	X7R	EIA	25°C	−55 to 125°C	±15%	−55 to 125°C	-	-	-	-	-	-
R9	X8R	EIA	25°C	−55 to 150°C	±15%	−55 to 150°C	-	-	-	-	-	-

*1 Murata Temperature Characteristic Code.
*2 Rated Voltage 100Vdc max: 25 to 85°C
*3 −25°C (Reference Temperature 20°C) / −30°C (Reference Temperature 25°C)

❺Rated Voltage

Code		Rated Voltage
Standard Product	Voltage Derated Product	
0E	EA	2.5Vdc
0G	EB	4Vdc
0J	EC	6.3Vdc
1A	ED	10Vdc
1C	EE	16Vdc
1E	EF	25Vdc
YA	EG	35Vdc
1H	EH	50Vdc
1J	-	63Vdc
1K	-	80Vdc
2A	EL	100Vdc
2E	-	250Vdc
2W	LP	450Vdc
2J	LQ/LV	630Vdc
3A	LF	1kVdc
-	LG	1.25kVdc

❻Capacitance

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.
If any letter, other than "**R**" is included, this indicates the specific part number is a non-standard part.

Ex.)

Code	Capacitance
R50	0.50pF
1R0	1.0pF
100	10pF
103	10000pF

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(Part Number)

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❶	❷	❸	❹	❺	❻	❼	❽	❾

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❼Capacitance Tolerance

Code	Capacitance Tolerance
B	±0.1pF
C	±0.25pF
D	±0.5pF (Less than 10pF)
	±0.5% (10pF and over)
F	±1%
G	±2%
J	±5%
K	±10%
M	±20%
R	Depends on individual standards.
W	±0.05pF

❽Individual Specification Code

Expressed by three figures.

❾Packaging

Code	Packaging
L	ø180mm Embossed Taping
D/W	ø180mm Paper Taping
K	ø330mm Embossed Taping
J	ø330mm Paper Taping

Please contact us if you find any part number not provided in this table.