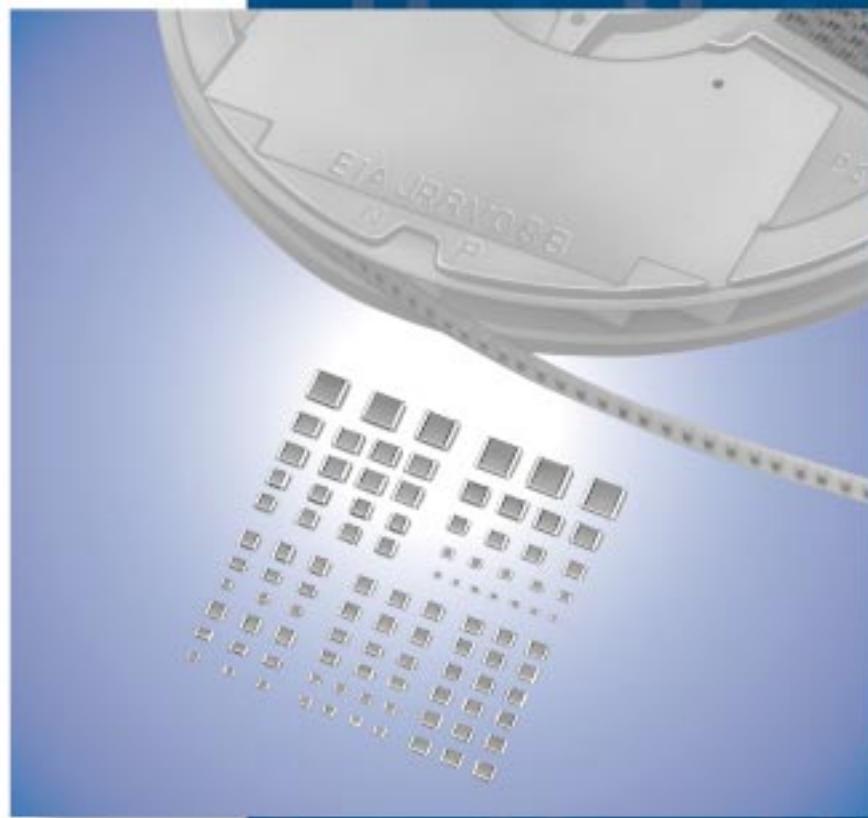


Chip Monolithic Ceramic Capacitors



muRata *Innovator in Electronics*
Murata Manufacturing Co., Ltd.

● Part Numbering

Chip Monolithic Ceramic Capacitors

(Part Number) **GR M 18 8 B1 1H 102 K A01 D**
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

① Product ID

② Series

Product ID	Code	Series
GR	J	Soft Termination Type
	M	Tin Plated Layer
	4	Only for Information Devices / Tip & Ring
	7	Only for Camera Flash Circuit
GQ	M	High Frequency for Flow/Reflow Soldering
GM	A	Monolithic Microchip
	D	For Bonding
GN	M	Capacitor Array
LL	L	Low ESL Type
	R	Controlled ESR Low ESL Type
	A	8-termination Low ESL Type
	M	10-termination Low ESL Type
GJ	M	High Frequency Low Loss Type
GA	2	For AC250V (r.m.s.)
	3	Safety Standard Certified Type

③ Dimensions (L×W)

Code	Dimensions (L×W)	EIA
02	0.4×0.2mm	01005
03	0.6×0.3mm	0201
05	0.5×0.5mm	0202
08	0.8×0.8mm	0303
0D	0.38×0.38mm	015015
0M	0.9×0.6mm	0302
15	1.0×0.5mm	0402
18	1.6×0.8mm	0603
1M	1.37×1.0mm	0504
21	2.0×1.25mm	0805
22	2.8×2.8mm	1111
31	3.2×1.6mm	1206
32	3.2×2.5mm	1210
42	4.5×2.0mm	1808
43	4.5×3.2mm	1812
52	5.7×2.8mm	2211
55	5.7×5.0mm	2220

④ Dimension (T) (Except **GNM**)

Code	Dimension (T)
2	0.2mm
3	0.3mm
5	0.5mm
6	0.6mm
7	0.7mm
8	0.8mm
9	0.85mm
A	1.0mm
B	1.25mm
C	1.6mm
D	2.0mm
E	2.5mm
F	3.2mm
M	1.15mm
N	1.35mm
Q	1.5mm
R	1.8mm
S	2.8mm
X	Depends on individual standards.

④ Elements (**GNM** Only)

Code	Elements
2	2-elements
4	4-elements

Continued on the following page. 

Continued from the preceding page.

⑤ Temperature Characteristics

Temperature Characteristic Codes			Temperature Characteristics			Operating Temperature Range
Code	Public STD Code	Reference Temperature	Temperature Range	Capacitance Change or Temperature Coefficient		
1X	SL *1	JIS	20°C	20 to 85°C	+350 to -1000ppm/°C	-55 to 125°C
2C	CH *1	JIS	20°C	20 to 125°C	0±60ppm/°C	-55 to 125°C
2P	PH *1	JIS	20°C	20 to 85°C	-150±60ppm/°C	-25 to 85°C
2R	RH *1	JIS	20°C	20 to 85°C	-220±60ppm/°C	-25 to 85°C
2S	SH *1	JIS	20°C	20 to 85°C	-330±60ppm/°C	-25 to 85°C
2T	TH *1	JIS	20°C	20 to 85°C	-470±60ppm/°C	-25 to 85°C
3C	CJ *1	JIS	20°C	20 to 125°C	0±120ppm/°C	-55 to 125°C
3P	PJ *1	JIS	20°C	20 to 85°C	-150±120ppm/°C	-25 to 85°C
3R	RJ *1	JIS	20°C	20 to 85°C	-220±120ppm/°C	-25 to 85°C
3S	SJ *1	JIS	20°C	20 to 85°C	-330±120ppm/°C	-25 to 85°C
3T	TJ *1	JIS	20°C	20 to 85°C	-470±120ppm/°C	-25 to 85°C
3U	UJ *1	JIS	20°C	20 to 85°C	-750±120ppm/°C	-25 to 85°C
4C	CK *1	JIS	20°C	20 to 125°C	0±250ppm/°C	-55 to 125°C
5C	C0G *1	EIA	25°C	25 to 125°C	0±30ppm/°C	-55 to 125°C
5G	X8G *1	EIA	25°C	25 to 150°C	0±30ppm/°C	-55 to 150°C
6C	C0H *1	EIA	25°C	25 to 125°C	0±60ppm/°C	-55 to 125°C
6P	P2H *1	EIA	25°C	25 to 85°C	-150±60ppm/°C	-55 to 125°C
6R	R2H *1	EIA	25°C	25 to 85°C	-220±60ppm/°C	-55 to 125°C
6S	S2H *1	EIA	25°C	25 to 85°C	-330±60ppm/°C	-55 to 125°C
6T	T2H *1	EIA	25°C	25 to 85°C	-470±60ppm/°C	-55 to 125°C
7U	U2J *1	EIA	25°C	25 to 125°C *6	-750±120ppm/°C	-55 to 125°C
B1	B *2	JIS	20°C	-25 to 85°C	±10%	-25 to 85°C
B3	B	JIS	20°C	-25 to 85°C	±10%	-25 to 85°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
D8	X6T	EIA	25°C	-55 to 105°C	+22, -33%	-55 to 105°C
E7	X7U	EIA	25°C	-55 to 125°C	+22, -56%	-55 to 125°C
F1	F *2	JIS	20°C	-25 to 85°C	+30, -80%	-25 to 85°C
F5	Y5V	EIA	25°C	-30 to 85°C	+22, -82%	-30 to 85°C
L8	X8L	*3	25°C	-55 to 150°C	+15, -40%	-55 to 150°C
R1	R *2	JIS	20°C	-55 to 125°C	±15%	-55 to 125°C
R3	R	JIS	20°C	-55 to 125°C	±15%	-55 to 125°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
W0	-	-	25°C	-55 to 125°C	±10% *4	-55 to 125°C
					+22, -33% *5	

*1 Please refer to table for Capacitance Change under reference temperature.

*2 Capacitance change is specified with 50% rated voltage applied.

*3 Murata Temperature Characteristic Code.

*4 Apply DC350V bias.

*5 No DC bias.

*6 Rated Voltage 100Vdc max : 25 to 85°C

Continued on the following page. 

Continued from the preceding page.

● Capacitance Change from each temperature

JIS Code

Murata Code	Capacitance Change from 20°C (%)					
	-55°C		-25°C		-10°C	
	Max.	Min.	Max.	Min.	Max.	Min.
1X	-	-	-	-	-	-
2C	0.82	-0.45	0.49	-0.27	0.33	-0.18
2P	-	-	1.32	0.41	0.88	0.27
2R	-	-	1.70	0.72	1.13	0.48
2S	-	-	2.30	1.22	1.54	0.81
2T	-	-	3.07	1.85	2.05	1.23
3C	1.37	-0.90	0.82	-0.54	0.55	-0.36
3P	-	-	1.65	0.14	1.10	0.09
3R	-	-	2.03	0.45	1.35	0.30
3S	-	-	2.63	0.95	1.76	0.63
3T	-	-	3.40	1.58	2.27	1.05
3U	-	-	4.94	2.84	3.29	1.89
4C	2.56	-1.88	1.54	-1.13	1.02	-0.75

EIA Code

Murata Code	Capacitance Change from 25°C (%)					
	-55°C		-30°C		-10°C	
	Max.	Min.	Max.	Min.	Max.	Min.
5C/5G	0.58	-0.24	0.40	-0.17	0.25	-0.11
6C	0.87	-0.48	0.59	-0.33	0.38	-0.21
6P	2.33	0.72	1.61	0.50	1.02	0.32
6R	3.02	1.28	2.08	0.88	1.32	0.56
6S	4.09	2.16	2.81	1.49	1.79	0.95
6T	5.46	3.28	3.75	2.26	2.39	1.44
7U	8.78	5.04	6.04	3.47	3.84	2.21

● Rated Voltage

Code	Rated Voltage
0E	DC2.5V
0G	DC4V
0J	DC6.3V
1A	DC10V
1C	DC16V
1E	DC25V
YA	DC35V
1H	DC50V
2A	DC100V
2D	DC200V
2E	DC250V
YD	DC300V
2H	DC500V
2J	DC630V
3A	DC1kV
3D	DC2kV
3F	DC3.15kV
BB	DC350V (for Camera Flash Circuit)
E2	AC250V
GC	X1/Y2; AC250V (Safety Standard Certified Type GC)
GF	Y2, X1/Y2; AC250V (Safety Standard Certified Type GF)
GD	Y3; AC250V (Safety Standard Certified Type GD)
GB	X2; AC250V (Safety Standard Certified Type GB)

● Capacitance

Expressed by three-digit alphanumerics. The unit is picofarad (pF). The first and second figures are significant digits, and the third figure expresses the number of zeros which 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

Continued on the following page. 

Please check the MURATA home page (<http://www.murata.com/>) if you cannot find the part number in the catalog.

Continued from the preceding page.

⑧ Capacitance Tolerance

Code	Capacitance Tolerance	TC	Series	Capacitance Step	
W	±0.05pF	CΔ	GRM/GJM	≤9.9pF	0.1pF
B	±0.1pF	CΔ	GRM/GJM	≤9.9pF	0.1pF
			GQM	≤1pF	0.1pF
				1.1 to 9.9pF	1pF Step and E24 Series
C	±0.25pF	CΔ	GRM/GJM	≤9.9pF	0.1pF
		except CΔ	GRM	≤5pF	* 1pF
		CΔ	GQM	≤1pF	0.1pF
D	±0.5pF	CΔ	GRM/GJM	5.1 to 9.9pF	0.1pF
		except CΔ	GRM	5.1 to 9.9pF	* 1pF
		CΔ	GQM	5.1 to 9.9pF	1pF Step and E24 Series
G	±2%	CΔ	GJM	≥10pF	E12 Series
		CΔ	GQM	≥10pF	E24 Series
J	±5%	CΔ, SL, U2J	GRM/GA3	≥10pF	E12 Series
		CΔ	GQM/GJM	≥10pF	E24 Series
K	±10%	B, R, X7R, X5R, ZLM	GRJ/GRM/GR7/GA3	E6 Series	
		C0G	GNM	E6 Series	
		B, R, X7R, X5R, ZLM	GR4, GMD	E12 Series	
M	±20%	B, R, X7R, X7S	GRM/GMA	E6 Series	
		X5R, X7R, X7S	GNM	E3 Series	
		X7R	GA2	E3 Series	
		X5R, X7R, X7S, X6S	LLL/LLR/LLA/LLM	E3 Series	
Z	+80%, -20%	F, Y5V	GRM	E3 Series	
R		Depends on individual standards.			

* E24 series is also available.

⑨ Individual Specification Code (Except **LLR**)

Expressed by three figures.

⑨ ESR (**LLR** Only)

Code	ESR
E01	100mΩ
E03	220mΩ
E05	470mΩ
E07	1000mΩ

⑩ Packaging

Code	Packaging
L	ø180mm Embossed Taping
D	ø180mm Paper Taping
E	ø180mm Paper Taping (LLL15)
K	ø330mm Embossed Taping
J	ø330mm Paper Taping
F	ø330mm Paper Taping (LLL15)
B	Bulk
C	Bulk Case
T	Bulk Tray

Chip Monolithic Ceramic Capacitors

muRata

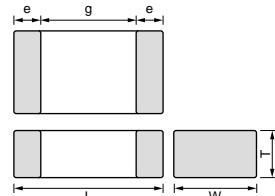
High-Q Type GJM Series

■ Features

1. Mobile Telecommunication and RF module, mainly
2. Improvement of telephone call quality, Low power Consumption, yield ratio improvement.

■ Applications

VCO, PA, Mobile Telecommunication



Part Number	Dimensions (mm)				
	L	W	T	e	g min.
GJM03	0.6 ±0.03	0.3 ±0.03	0.3 ±0.03	0.1 to 0.2	0.2
GJM15	1.0 ±0.05	0.5 ±0.05	0.5 ±0.05	0.15 to 0.35	0.3

For General
GRM Series

Array
GNM Series

Low ESL
LL□ Series

High-Q
GJM Series

High Frequency
GQM Series

Monolithic Microchip
GMA Series

For Bonding
GMD Series

Product Information

Capacitance Table

Temperature Compensating Type C0G(5C)/C0H(6C) Characteristics

For General
GRM Series

Array
GNM Series

Low ESL
LL□ Series

High-Q
GJM Series

High Frequency
GQM Series

Monolithic Microchip
GMA Series

For Bonding
GMD Series

Product Information

3 ex.3: T Dimension [mm]

	LxW [mm]	0.6x0.3 (03) <0201>	1.0x0.5 (15) <0402>
Rated Voltage Capacitance	25 (1E)	6.3 (0J)	50 (1H)
0.1pF(R10)			5
0.2pF(R20)	3		5
0.3pF(R30)	3		5
0.4pF(R40)	3		5
0.5pF(R50)	3		5
0.6pF(R60)	3		5
0.7pF(R70)	3		5
0.8pF(R80)	3		5
0.9pF(R90)	3		5
1.0pF(1R0)	3		5
1.1pF(1R1)	3		5
1.2pF(1R2)	3		5
1.3pF(1R3)	3		5
1.4pF(1R4)	3		5
1.5pF(1R5)	3		5
1.6pF(1R6)	3		5
1.7pF(1R7)	3		5
1.8pF(1R8)	3		5
1.9pF(1R9)	3		5
2.0pF(2R0)	3		5
2.1pF(2R1)	3		5
2.2pF(2R2)	3		5
2.3pF(2R3)	3		5
2.4pF(2R4)	3		5
2.5pF(2R5)	3		5
2.6pF(2R6)	3		5
2.7pF(2R7)	3		5
2.8pF(2R8)	3		5
2.9pF(2R9)	3		5
3.0pF(3R0)	3		5
3.1pF(3R1)	3		5
3.2pF(3R2)	3		5
3.3pF(3R3)	3		5
3.4pF(3R4)	3		5
3.5pF(3R5)	3		5
3.6pF(3R6)	3		5
3.7pF(3R7)	3		5
3.8pF(3R8)	3		5
3.9pF(3R9)	3		5
4.0pF(4R0)	3		5
4.1pF(4R1)	3		5
4.2pF(4R2)	3		5
4.3pF(4R3)	3		5
4.4pF(4R4)	3		5
4.5pF(4R5)	3		5
4.6pF(4R6)	3		5
4.7pF(4R7)	3		5
4.8pF(4R8)	3		5
4.9pF(4R9)	3		5

	LxW [mm]	0.6x0.3 (03) <0201>	1.0x0.5 (15) <0402>
Rated Voltage Capacitance	25 (1E)	6.3 (0J)	50 (1H)
5.0pF(5R0)	3		5
5.1pF(5R1)	3		5
5.2pF(5R2)	3		5
5.3pF(5R3)	3		5
5.4pF(5R4)	3		5
5.5pF(5R5)	3		5
5.6pF(5R6)	3		5
5.7pF(5R7)	3		5
5.8pF(5R8)	3		5
5.9pF(5R9)	3		5
6.0pF(6R0)	3		5
6.1pF(6R1)	3		5
6.2pF(6R2)	3		5
6.3pF(6R3)	3		5
6.4pF(6R4)	3		5
6.5pF(6R5)	3		5
6.6pF(6R6)	3		5
6.7pF(6R7)	3		5
6.8pF(6R8)	3		5
6.9pF(6R9)	3		5
7.0pF(7R0)	3		5
7.1pF(7R1)	3		5
7.2pF(7R2)	3		5
7.3pF(7R3)	3		5
7.4pF(7R4)	3		5
7.5pF(7R5)	3		5
7.6pF(7R6)	3		5
7.7pF(7R7)	3		5
7.8pF(7R8)	3		5
7.9pF(7R9)	3		5
8.0pF(8R0)	3		5
8.1pF(8R1)	3		5
8.2pF(8R2)	3		5
8.3pF(8R3)	3		5
8.4pF(8R4)	3		5
8.5pF(8R5)	3		5
8.6pF(8R6)	3		5
8.7pF(8R7)	3		5
8.8pF(8R8)	3		5
8.9pF(8R9)	3		5
9.0pF(9R0)	3		5
9.1pF(9R1)	3		5
9.2pF(9R2)	3		5
9.3pF(9R3)	3		5
9.4pF(9R4)	3		5
9.5pF(9R5)	3		5
9.6pF(9R6)	3		5
9.7pF(9R7)	3		5
9.8pF(9R8)	3		5

	LxW [mm]	0.6x0.3 (03) <0201>	1.0x0.5 (15) <0402>
Rated Voltage Capacitance	25 (1E)	6.3 (0J)	50 (1H)
9.9pF(9R9)	3		5
10pF(100)	3		5
11pF(110)	3		5
12pF(120)	3		5
13pF(130)	3		5
15pF(150)	3		5
16pF(160)	3		5
18pF(180)	3		5
20pF(200)	3		5
22pF(220)			3
24pF(240)			3
27pF(270)			3
30pF(300)			3
33pF(330)			3

The part number code is shown in () and Unit is shown in []. < >: EIA [inch] Code

Temperature Compensating Type C0G(5C) Characteristics

LxW [mm]	0.6x0.3(03)<0201>	1.0x0.5(15)<0402>
Rated Volt. [Vdc]	25(1E)	50(1H)
Capacitance	Tolerance	Part Number
0.1pF(R10)	±0.05pF(W) ±0.1pF(B)	GJM1555C1HR10WB01D GJM1555C1HR10BB01D
0.2pF(R20)	±0.05pF(W) ±0.1pF(B)	GJM0335C1ER20WB01D GJM0335C1ER20BB01D
0.3pF(R30)	±0.05pF(W) ±0.1pF(B)	GJM0335C1ER30WB01D GJM0335C1ER30BB01D
0.4pF(R40)	±0.05pF(W) ±0.1pF(B)	GJM0335C1ER40WB01D GJM0335C1ER40BB01D
0.5pF(R50)	±0.05pF(W) ±0.1pF(B)	GJM0335C1ER50WB01D GJM0335C1ER50BB01D
0.6pF(R60)	±0.05pF(W) ±0.1pF(B)	GJM0335C1ER60WB01D GJM0335C1ER60BB01D
0.7pF(R70)	±0.05pF(W) ±0.1pF(B)	GJM0335C1ER70WB01D GJM0335C1ER70BB01D
0.8pF(R80)	±0.05pF(W) ±0.1pF(B)	GJM0335C1ER80WB01D GJM0335C1ER80BB01D
0.9pF(R90)	±0.05pF(W) ±0.1pF(B)	GJM0335C1ER90WB01D GJM0335C1ER90BB01D
1.0pF(1R0)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C)	GJM0335C1E1R0WB01D GJM0335C1E1R0BB01D GJM0335C1E1R0CB01D
1.1pF(1R1)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C)	GJM0335C1E1R1WB01D GJM0335C1E1R1BB01D GJM0335C1E1R1CB01D
1.2pF(1R2)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C)	GJM0335C1E1R2WB01D GJM0335C1E1R2BB01D GJM0335C1E1R2CB01D
1.3pF(1R3)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C)	GJM0335C1E1R3WB01D GJM0335C1E1R3BB01D GJM0335C1E1R3CB01D
1.4pF(1R4)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C)	GJM0335C1E1R4WB01D GJM0335C1E1R4BB01D GJM0335C1E1R4CB01D
1.5pF(1R5)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C)	GJM0335C1E1R5WB01D GJM0335C1E1R5BB01D GJM0335C1E1R5CB01D
1.6pF(1R6)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C)	GJM0335C1E1R6WB01D GJM0335C1E1R6BB01D GJM0335C1E1R6CB01D
1.7pF(1R7)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C)	GJM0335C1E1R7WB01D GJM0335C1E1R7BB01D GJM0335C1E1R7CB01D
1.8pF(1R8)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C)	GJM0335C1E1R8WB01D GJM0335C1E1R8BB01D GJM0335C1E1R8CB01D
1.9pF(1R9)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C)	GJM0335C1E1R9WB01D GJM0335C1E1R9BB01D GJM0335C1E1R9CB01D

The part number code is shown in () and Unit is shown in []. < >: EIA [inch] Code

(Part Number) **GJ** **M** **03** **3** **5C** **1E** **R20** **W** **B01** **D** ①Product ID ②Series
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑤Temperature Characteristics
 ⑥Rated Voltage ⑦Capacitance
 ⑧Capacitance Tolerance ⑨Individual Specification Code ⑩Packaging

Packaging Code in Part Number shows STD 180mm Reel Taping.

Temperature Compensating Type C0G(5C) Characteristics

LxW [mm]	0.6x0.3(03)<0201>	1.0x0.5(15)<0402>
Rated Volt. [Vdc]	25(1E)	50(1H)
Capacitance	Tolerance	Part Number
2.0pF(2R0)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C)	GJM0335C1E2R0WB01D GJM0335C1E2R0BB01D GJM0335C1E2R0CB01D
2.1pF(2R1)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C)	GJM0335C1E2R1WB01D GJM0335C1E2R1BB01D GJM0335C1E2R1CB01D
2.2pF(2R2)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C)	GJM0335C1E2R2WB01D GJM0335C1E2R2BB01D GJM0335C1E2R2CB01D
2.3pF(2R3)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C)	GJM0335C1E2R3WB01D GJM0335C1E2R3BB01D GJM0335C1E2R3CB01D
2.4pF(2R4)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C)	GJM0335C1E2R4WB01D GJM0335C1E2R4BB01D GJM0335C1E2R4CB01D
2.5pF(2R5)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C)	GJM0335C1E2R5WB01D GJM0335C1E2R5BB01D GJM0335C1E2R5CB01D
2.6pF(2R6)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C)	GJM0335C1E2R6WB01D GJM0335C1E2R6BB01D GJM0335C1E2R6CB01D
2.7pF(2R7)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C)	GJM0335C1E2R7WB01D GJM0335C1E2R7BB01D GJM0335C1E2R7CB01D
2.8pF(2R8)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C)	GJM0335C1E2R8WB01D GJM0335C1E2R8BB01D GJM0335C1E2R8CB01D
2.9pF(2R9)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C)	GJM0335C1E2R9WB01D GJM0335C1E2R9BB01D GJM0335C1E2R9CB01D
3.0pF(3R0)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C)	GJM0335C1E3R0WB01D GJM0335C1E3R0BB01D GJM0335C1E3R0CB01D
3.1pF(3R1)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C)	GJM0335C1E3R1WB01D GJM0335C1E3R1BB01D GJM0335C1E3R1CB01D
3.2pF(3R2)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C)	GJM0335C1E3R2WB01D GJM0335C1E3R2BB01D GJM0335C1E3R2CB01D
3.3pF(3R3)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C)	GJM0335C1E3R3WB01D GJM0335C1E3R3BB01D GJM0335C1E3R3CB01D
3.4pF(3R4)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C)	GJM0335C1E3R4WB01D GJM0335C1E3R4BB01D GJM0335C1E3R4CB01D
3.5pF(3R5)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C)	GJM0335C1E3R5WB01D GJM0335C1E3R5BB01D GJM0335C1E3R5CB01D

The part number code is shown in () and Unit is shown in []. < >: EIA [inch] Code

(Part Number) **GJ** **M** **03** **3** **5C** **1E** **2R0** **W** **B01** **D** ①Product ID ②Series
 ③Dimensions (LxW) ④Dimension (T)
 ⑤Temperature Characteristics ⑥Rated Voltage ⑦Capacitance
 ⑧Capacitance Tolerance ⑨Individual Specification Code ⑩Packaging

Packaging Code in Part Number shows STD 180mm Reel Taping.

Temperature Compensating Type C0G(5C) Characteristics

LxW [mm]	0.6x0.3(03)<0201>	1.0x0.5(15)<0402>
Rated Volt. [Vdc]	25(1E)	50(1H)
Capacitance	Tolerance	Part Number
3.6pF(3R6)	±0.05pF(W)	GJM0335C1E3R6WB01D
	±0.1pF(B)	GJM0335C1E3R6BB01D
	±0.25pF(C)	GJM0335C1E3R6CB01D
3.7pF(3R7)	±0.05pF(W)	GJM0335C1E3R7WB01D
	±0.1pF(B)	GJM0335C1E3R7BB01D
	±0.25pF(C)	GJM0335C1E3R7CB01D
3.8pF(3R8)	±0.05pF(W)	GJM0335C1E3R8WB01D
	±0.1pF(B)	GJM0335C1E3R8BB01D
	±0.25pF(C)	GJM0335C1E3R8CB01D
3.9pF(3R9)	±0.05pF(W)	GJM0335C1E3R9WB01D
	±0.1pF(B)	GJM0335C1E3R9BB01D
	±0.25pF(C)	GJM0335C1E3R9CB01D
4.0pF(4R0)	±0.05pF(W)	GJM0335C1E4R0WB01D
	±0.1pF(B)	GJM0335C1E4R0BB01D
	±0.25pF(C)	GJM0335C1E4R0CB01D
4.1pF(4R1)	±0.05pF(W)	GJM0335C1E4R1WB01D
	±0.1pF(B)	GJM0335C1E4R1BB01D
	±0.25pF(C)	GJM0335C1E4R1CB01D
4.2pF(4R2)	±0.05pF(W)	GJM0335C1E4R2WB01D
	±0.1pF(B)	GJM0335C1E4R2BB01D
	±0.25pF(C)	GJM0335C1E4R2CB01D
4.3pF(4R3)	±0.05pF(W)	GJM0335C1E4R3WB01D
	±0.1pF(B)	GJM0335C1E4R3BB01D
	±0.25pF(C)	GJM0335C1E4R3CB01D
4.4pF(4R4)	±0.05pF(W)	GJM0335C1E4R4WB01D
	±0.1pF(B)	GJM0335C1E4R4BB01D
	±0.25pF(C)	GJM0335C1E4R4CB01D
4.5pF(4R5)	±0.05pF(W)	GJM0335C1E4R5WB01D
	±0.1pF(B)	GJM0335C1E4R5BB01D
	±0.25pF(C)	GJM0335C1E4R5CB01D
4.6pF(4R6)	±0.05pF(W)	GJM0335C1E4R6WB01D
	±0.1pF(B)	GJM0335C1E4R6BB01D
	±0.25pF(C)	GJM0335C1E4R6CB01D
4.7pF(4R7)	±0.05pF(W)	GJM0335C1E4R7WB01D
	±0.1pF(B)	GJM0335C1E4R7BB01D
	±0.25pF(C)	GJM0335C1E4R7CB01D
4.8pF(4R8)	±0.05pF(W)	GJM0335C1E4R8WB01D
	±0.1pF(B)	GJM0335C1E4R8BB01D
	±0.25pF(C)	GJM0335C1E4R8CB01D
4.9pF(4R9)	±0.05pF(W)	GJM0335C1E4R9WB01D
	±0.1pF(B)	GJM0335C1E4R9BB01D
	±0.25pF(C)	GJM0335C1E4R9CB01D
5.0pF(5R0)	±0.05pF(W)	GJM0335C1E5R0WB01D
	±0.1pF(B)	GJM0335C1E5R0BB01D
	±0.25pF(C)	GJM0335C1E5R0CB01D
5.1pF(5R1)	±0.05pF(W)	GJM0335C1E5R1WB01D
	±0.1pF(B)	GJM0335C1E5R1BB01D
	±0.25pF(C)	GJM0335C1E5R1CB01D
	±0.5pF(D)	GJM0335C1E5R1DB01D

The part number code is shown in () and Unit is shown in []. < >: EIA [inch] Code

For General
GRM Series

Array
GNM Series

Low ESL
LL□ Series

High-Q
GJM Series

High Frequency
GQM Series

Monolithic Microchip
GMA Series

For Bonding
GMD Series

Product Information

Temperature Compensating Type C0G(5C) Characteristics

LxW [mm]	0.6x0.3(03)<0201>	1.0x0.5(15)<0402>
Rated Volt. [Vdc]	25(1E)	50(1H)
Capacitance	Tolerance	Part Number
5.2pF(5R2)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C) ±0.5pF(D)	GJM0335C1E5R2WB01D GJM0335C1E5R2BB01D GJM0335C1E5R2CB01D GJM0335C1E5R2DB01D GJM1555C1H5R2WB01D GJM1555C1H5R2BB01D GJM1555C1H5R2CB01D GJM1555C1H5R2DB01D
5.3pF(5R3)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C) ±0.5pF(D)	GJM0335C1E5R3WB01D GJM0335C1E5R3BB01D GJM0335C1E5R3CB01D GJM0335C1E5R3DB01D GJM1555C1H5R3WB01D GJM1555C1H5R3BB01D GJM1555C1H5R3CB01D GJM1555C1H5R3DB01D
5.4pF(5R4)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C) ±0.5pF(D)	GJM0335C1E5R4WB01D GJM0335C1E5R4BB01D GJM0335C1E5R4CB01D GJM0335C1E5R4DB01D GJM1555C1H5R4WB01D GJM1555C1H5R4BB01D GJM1555C1H5R4CB01D GJM1555C1H5R4DB01D
5.5pF(5R5)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C) ±0.5pF(D)	GJM0335C1E5R5WB01D GJM0335C1E5R5BB01D GJM0335C1E5R5CB01D GJM0335C1E5R5DB01D GJM1555C1H5R5WB01D GJM1555C1H5R5BB01D GJM1555C1H5R5CB01D GJM1555C1H5R5DB01D
5.6pF(5R6)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C) ±0.5pF(D)	GJM0335C1E5R6WB01D GJM0335C1E5R6BB01D GJM0335C1E5R6CB01D GJM0335C1E5R6DB01D GJM1555C1H5R6WB01D GJM1555C1H5R6BB01D GJM1555C1H5R6CB01D GJM1555C1H5R6DB01D
5.7pF(5R7)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C) ±0.5pF(D)	GJM0335C1E5R7WB01D GJM0335C1E5R7BB01D GJM0335C1E5R7CB01D GJM0335C1E5R7DB01D GJM1555C1H5R7WB01D GJM1555C1H5R7BB01D GJM1555C1H5R7CB01D GJM1555C1H5R7DB01D
5.8pF(5R8)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C) ±0.5pF(D)	GJM0335C1E5R8WB01D GJM0335C1E5R8BB01D GJM0335C1E5R8CB01D GJM0335C1E5R8DB01D GJM1555C1H5R8WB01D GJM1555C1H5R8BB01D GJM1555C1H5R8CB01D GJM1555C1H5R8DB01D
5.9pF(5R9)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C) ±0.5pF(D)	GJM0335C1E5R9WB01D GJM0335C1E5R9BB01D GJM0335C1E5R9CB01D GJM0335C1E5R9DB01D GJM1555C1H5R9WB01D GJM1555C1H5R9BB01D GJM1555C1H5R9CB01D GJM1555C1H5R9DB01D
6.0pF(6R0)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C) ±0.5pF(D)	GJM0335C1E6R0WB01D GJM0335C1E6R0BB01D GJM0335C1E6R0CB01D GJM0335C1E6R0DB01D GJM1555C1H6R0WB01D GJM1555C1H6R0BB01D GJM1555C1H6R0CB01D GJM1555C1H6R0DB01D
6.1pF(6R1)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C) ±0.5pF(D)	GJM0335C1E6R1WB01D GJM0335C1E6R1BB01D GJM0335C1E6R1CB01D GJM0335C1E6R1DB01D GJM1555C1H6R1WB01D GJM1555C1H6R1BB01D GJM1555C1H6R1CB01D GJM1555C1H6R1DB01D
6.2pF(6R2)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C) ±0.5pF(D)	GJM0335C1E6R2WB01D GJM0335C1E6R2BB01D GJM0335C1E6R2CB01D GJM0335C1E6R2DB01D GJM1555C1H6R2WB01D GJM1555C1H6R2BB01D GJM1555C1H6R2CB01D GJM1555C1H6R2DB01D
6.3pF(6R3)	±0.05pF(W) ±0.1pF(B) ±0.25pF(C) ±0.5pF(D)	GJM0335C1E6R3WB01D GJM0335C1E6R3BB01D GJM0335C1E6R3CB01D GJM0335C1E6R3DB01D GJM1555C1H6R3WB01D GJM1555C1H6R3BB01D GJM1555C1H6R3CB01D GJM1555C1H6R3DB01D

The part number code is shown in () and Unit is shown in []. < >: EIA [inch] Code

(Part Number) **GJ** **M** **03** **3** **5C** **1E** **5R2** **W** **B01** **D** ①Product ID ②Series
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑤Temperature Characteristics
 ⑥Rated Voltage ⑦Capacitance
 ⑧Capacitance Tolerance ⑨Individual Specification Code ⑩Packaging

Packaging Code in Part Number shows STD 180mm Reel Taping.

Temperature Compensating Type C0G(5C)/C0H(6C) Characteristics

LxW [mm]	0.6x0.3(03)<0201>	1.0x0.5(15)<0402>
Rated Volt. [Vdc]	25(1E)	50(1H)
Capacitance	Tolerance	Part Number
6.4pF(6R4)	±0.05pF(W)	GJM0335C1E6R4WB01D
	±0.1pF(B)	GJM0335C1E6R4BB01D
	±0.25pF(C)	GJM0335C1E6R4CB01D
	±0.5pF(D)	GJM0335C1E6R4DB01D
6.5pF(6R5)	±0.05pF(W)	GJM0335C1E6R5WB01D
	±0.1pF(B)	GJM0335C1E6R5BB01D
	±0.25pF(C)	GJM0335C1E6R5CB01D
	±0.5pF(D)	GJM0335C1E6R5DB01D
6.6pF(6R6)	±0.05pF(W)	GJM0335C1E6R6WB01D
	±0.1pF(B)	GJM0335C1E6R6BB01D
	±0.25pF(C)	GJM0335C1E6R6CB01D
	±0.5pF(D)	GJM0335C1E6R6DB01D
6.7pF(6R7)	±0.05pF(W)	GJM0335C1E6R7WB01D
	±0.1pF(B)	GJM0335C1E6R7BB01D
	±0.25pF(C)	GJM0335C1E6R7CB01D
	±0.5pF(D)	GJM0335C1E6R7DB01D
6.8pF(6R8)	±0.05pF(W)	GJM0335C1E6R8WB01D
	±0.1pF(B)	GJM0335C1E6R8BB01D
	±0.25pF(C)	GJM0335C1E6R8CB01D
	±0.5pF(D)	GJM0335C1E6R8DB01D
6.9pF(6R9)	±0.05pF(W)	GJM0336C1E6R9WB01D
	±0.1pF(B)	GJM0336C1E6R9BB01D
	±0.25pF(C)	GJM0336C1E6R9CB01D
	±0.5pF(D)	GJM0336C1E6R9DB01D
7.0pF(7R0)	±0.05pF(W)	GJM0336C1E7R0WB01D
	±0.1pF(B)	GJM0336C1E7R0BB01D
	±0.25pF(C)	GJM0336C1E7R0CB01D
	±0.5pF(D)	GJM0336C1E7R0DB01D
7.1pF(7R1)	±0.05pF(W)	GJM0336C1E7R1WB01D
	±0.1pF(B)	GJM0336C1E7R1BB01D
	±0.25pF(C)	GJM0336C1E7R1CB01D
	±0.5pF(D)	GJM0336C1E7R1DB01D
7.2pF(7R2)	±0.05pF(W)	GJM0336C1E7R2WB01D
	±0.1pF(B)	GJM0336C1E7R2BB01D
	±0.25pF(C)	GJM0336C1E7R2CB01D
	±0.5pF(D)	GJM0336C1E7R2DB01D
7.3pF(7R3)	±0.05pF(W)	GJM0336C1E7R3WB01D
	±0.1pF(B)	GJM0336C1E7R3BB01D
	±0.25pF(C)	GJM0336C1E7R3CB01D
	±0.5pF(D)	GJM0336C1E7R3DB01D
7.4pF(7R4)	±0.05pF(W)	GJM0336C1E7R4WB01D
	±0.1pF(B)	GJM0336C1E7R4BB01D
	±0.25pF(C)	GJM0336C1E7R4CB01D
	±0.5pF(D)	GJM0336C1E7R4DB01D
7.5pF(7R5)	±0.05pF(W)	GJM0336C1E7R5WB01D
	±0.1pF(B)	GJM0336C1E7R5BB01D
	±0.25pF(C)	GJM0336C1E7R5CB01D
	±0.5pF(D)	GJM0336C1E7R5DB01D
7.6pF(7R6)	±0.05pF(W)	GJM0336C1E7R6WB01D
	±0.1pF(B)	GJM0336C1E7R6BB01D
	±0.25pF(C)	GJM0336C1E7R6CB01D
	±0.5pF(D)	GJM0336C1E7R6DB01D

The part number code is shown in () and Unit is shown in []. < >: EIA [inch] Code

For General
GRM Series

Array
GNM Series

Low ESL
LL□ Series

High-Q
GJM Series

High Frequency
GQM Series

Monolithic Microchip
GMA Series

For Bonding
GMD Series

Product Information

Temperature Compensating Type C0G(5C)/C0H(6C) Characteristics

LxW [mm]	0.6x0.3(03)<0201>	1.0x0.5(15)<0402>
Rated Volt. [Vdc]	25(1E)	50(1H)
Capacitance	Tolerance	Part Number
7.7pF(7R7)	±0.05pF(W)	GJM0336C1E7R7WB01D
	±0.1pF(B)	GJM0336C1E7R7BB01D
	±0.25pF(C)	GJM0336C1E7R7CB01D
	±0.5pF(D)	GJM0336C1E7R7DB01D
7.8pF(7R8)	±0.05pF(W)	GJM0336C1E7R8WB01D
	±0.1pF(B)	GJM0336C1E7R8BB01D
	±0.25pF(C)	GJM0336C1E7R8CB01D
	±0.5pF(D)	GJM0336C1E7R8DB01D
7.9pF(7R9)	±0.05pF(W)	GJM0336C1E7R9WB01D
	±0.1pF(B)	GJM0336C1E7R9BB01D
	±0.25pF(C)	GJM0336C1E7R9CB01D
	±0.5pF(D)	GJM0336C1E7R9DB01D
8.0pF(8R0)	±0.05pF(W)	GJM0336C1E8R0WB01D
	±0.1pF(B)	GJM0336C1E8R0BB01D
	±0.25pF(C)	GJM0336C1E8R0CB01D
	±0.5pF(D)	GJM0336C1E8R0DB01D
8.1pF(8R1)	±0.05pF(W)	GJM0336C1E8R1WB01D
	±0.1pF(B)	GJM0336C1E8R1BB01D
	±0.25pF(C)	GJM0336C1E8R1CB01D
	±0.5pF(D)	GJM0336C1E8R1DB01D
8.2pF(8R2)	±0.05pF(W)	GJM0336C1E8R2WB01D
	±0.1pF(B)	GJM0336C1E8R2BB01D
	±0.25pF(C)	GJM0336C1E8R2CB01D
	±0.5pF(D)	GJM0336C1E8R2DB01D
8.3pF(8R3)	±0.05pF(W)	GJM0336C1E8R3WB01D
	±0.1pF(B)	GJM0336C1E8R3BB01D
	±0.25pF(C)	GJM0336C1E8R3CB01D
	±0.5pF(D)	GJM0336C1E8R3DB01D
8.4pF(8R4)	±0.05pF(W)	GJM0336C1E8R4WB01D
	±0.1pF(B)	GJM0336C1E8R4BB01D
	±0.25pF(C)	GJM0336C1E8R4CB01D
	±0.5pF(D)	GJM0336C1E8R4DB01D
8.5pF(8R5)	±0.05pF(W)	GJM0336C1E8R5WB01D
	±0.1pF(B)	GJM0336C1E8R5BB01D
	±0.25pF(C)	GJM0336C1E8R5CB01D
	±0.5pF(D)	GJM0336C1E8R5DB01D
8.6pF(8R6)	±0.05pF(W)	GJM0336C1E8R6WB01D
	±0.1pF(B)	GJM0336C1E8R6BB01D
	±0.25pF(C)	GJM0336C1E8R6CB01D
	±0.5pF(D)	GJM0336C1E8R6DB01D
8.7pF(8R7)	±0.05pF(W)	GJM0336C1E8R7WB01D
	±0.1pF(B)	GJM0336C1E8R7BB01D
	±0.25pF(C)	GJM0336C1E8R7CB01D
	±0.5pF(D)	GJM0336C1E8R7DB01D
8.8pF(8R8)	±0.05pF(W)	GJM0336C1E8R8WB01D
	±0.1pF(B)	GJM0336C1E8R8BB01D
	±0.25pF(C)	GJM0336C1E8R8CB01D
	±0.5pF(D)	GJM0336C1E8R8DB01D

The part number code is shown in () and Unit is shown in []. < >: EIA [inch] Code

(Part Number) **GJ M 03 3 6C 1E 7R7 W B01 D** ①Product ID ②Series
 ③Dimensions (LxW) ④Dimension (T)
 ⑤Temperature Characteristics ⑥Rated Voltage
 ⑦Capacitance ⑧Capacitance Tolerance
 ⑨Individual Specification Code ⑩Packaging

Packaging Code in Part Number shows STD 180mm Reel Taping.

Temperature Compensating Type C0G(5C)/C0H(6C) Characteristics

LxW [mm]	0.6x0.3(03)<0201>	1.0x0.5(15)<0402>
Rated Volt. [Vdc]	25(1E)	50(1H)
Capacitance	Tolerance	Part Number
8.9pF(8R9)	±0.05pF(W)	GJM0336C1E8R9WB01D
	±0.1pF(B)	GJM0336C1E8R9BB01D
	±0.25pF(C)	GJM0336C1E8R9CB01D
	±0.5pF(D)	GJM0336C1E8R9DB01D
9.0pF(9R0)	±0.05pF(W)	GJM0336C1E9R0WB01D
	±0.1pF(B)	GJM0336C1E9R0BB01D
	±0.25pF(C)	GJM0336C1E9R0CB01D
	±0.5pF(D)	GJM0336C1E9R0DB01D
9.1pF(9R1)	±0.05pF(W)	GJM0336C1E9R1WB01D
	±0.1pF(B)	GJM0336C1E9R1BB01D
	±0.25pF(C)	GJM0336C1E9R1CB01D
	±0.5pF(D)	GJM0336C1E9R1DB01D
9.2pF(9R2)	±0.05pF(W)	GJM0336C1E9R2WB01D
	±0.1pF(B)	GJM0336C1E9R2BB01D
	±0.25pF(C)	GJM0336C1E9R2CB01D
	±0.5pF(D)	GJM0336C1E9R2DB01D
9.3pF(9R3)	±0.05pF(W)	GJM0336C1E9R3WB01D
	±0.1pF(B)	GJM0336C1E9R3BB01D
	±0.25pF(C)	GJM0336C1E9R3CB01D
	±0.5pF(D)	GJM0336C1E9R3DB01D
9.4pF(9R4)	±0.05pF(W)	GJM0336C1E9R4WB01D
	±0.1pF(B)	GJM0336C1E9R4BB01D
	±0.25pF(C)	GJM0336C1E9R4CB01D
	±0.5pF(D)	GJM0336C1E9R4DB01D
9.5pF(9R5)	±0.05pF(W)	GJM0336C1E9R5WB01D
	±0.1pF(B)	GJM0336C1E9R5BB01D
	±0.25pF(C)	GJM0336C1E9R5CB01D
	±0.5pF(D)	GJM0336C1E9R5DB01D
9.6pF(9R6)	±0.05pF(W)	GJM0336C1E9R6WB01D
	±0.1pF(B)	GJM0336C1E9R6BB01D
	±0.25pF(C)	GJM0336C1E9R6CB01D
	±0.5pF(D)	GJM0336C1E9R6DB01D
9.7pF(9R7)	±0.05pF(W)	GJM0336C1E9R7WB01D
	±0.1pF(B)	GJM0336C1E9R7BB01D
	±0.25pF(C)	GJM0336C1E9R7CB01D
	±0.5pF(D)	GJM0336C1E9R7DB01D
9.8pF(9R8)	±0.05pF(W)	GJM0336C1E9R8WB01D
	±0.1pF(B)	GJM0336C1E9R8BB01D
	±0.25pF(C)	GJM0336C1E9R8CB01D
	±0.5pF(D)	GJM0336C1E9R8DB01D
9.9pF(9R9)	±0.05pF(W)	GJM0336C1E9R9WB01D
	±0.1pF(B)	GJM0336C1E9R9BB01D
	±0.25pF(C)	GJM0336C1E9R9CB01D
	±0.5pF(D)	GJM0336C1E9R9DB01D

The part number code is shown in () and Unit is shown in []. < >: EIA [inch] Code

For General
GRM Series

Array
GNM Series

Low ESL
LL□ Series

High-Q
GJM Series

High Frequency
GQM Series

Monolithic Microchip
GMA Series

For Bonding
GMD Series

Product Information

Temperature Compensating Type C0G(5C)/C0H(6C) Characteristics

For General
GRM Series

Array
GNM Series

Low ESL
LL□ Series

High-Q
GJM Series

High Frequency
GQM Series

Monolithic Microchip
GMA Series

For Bonding
GMD Series

Product Information

LxW [mm]		0.6x0.3(03)<0201>		1.0x0.5(15)<0402>
Rated Volt. [Vdc]		25(1E)	6.3(0J)	50(1H)
Capacitance	Tolerance	Part Number		
10pF(100)	±2%(G)	GJM0336C1E100GB01D		GJM1555C1H100GB01D
	±5%(J)	GJM0336C1E100JB01D		GJM1555C1H100JB01D
11pF(110)	±2%(G)	GJM0336C1E110GB01D		GJM1555C1H110GB01D
	±5%(J)	GJM0336C1E110JB01D		GJM1555C1H110JB01D
12pF(120)	±2%(G)	GJM0336C1E120GB01D		GJM1555C1H120GB01D
	±5%(J)	GJM0336C1E120JB01D		GJM1555C1H120JB01D
13pF(130)	±2%(G)	GJM0336C1E130GB01D		GJM1555C1H130GB01D
	±5%(J)	GJM0336C1E130JB01D		GJM1555C1H130JB01D
15pF(150)	±2%(G)	GJM0336C1E150GB01D		GJM1555C1H150GB01D
	±5%(J)	GJM0336C1E150JB01D		GJM1555C1H150JB01D
16pF(160)	±2%(G)	GJM0336C1E160GB01D		GJM1555C1H160GB01D
	±5%(J)	GJM0336C1E160JB01D		GJM1555C1H160JB01D
18pF(180)	±2%(G)	GJM0336C1E180GB01D		GJM1555C1H180GB01D
	±5%(J)	GJM0336C1E180JB01D		GJM1555C1H180JB01D
20pF(200)	±2%(G)	GJM0336C1E200GB01D		GJM1555C1H200GB01D
	±5%(J)	GJM0336C1E200JB01D		GJM1555C1H200JB01D
22pF(220)	±2%(G)		GJM0335C0J220GB01D	
	±5%(J)		GJM0335C0J220JB01D	
24pF(240)	±2%(G)		GJM0335C0J240GB01D	
	±5%(J)		GJM0335C0J240JB01D	
27pF(270)	±2%(G)		GJM0335C0J270GB01D	
	±5%(J)		GJM0335C0J270JB01D	
30pF(300)	±2%(G)		GJM0335C0J300GB01D	
	±5%(J)		GJM0335C0J300JB01D	
33pF(330)	±2%(G)		GJM0335C0J330GB01D	
	±5%(J)		GJM0335C0J330JB01D	

The part number code is shown in () and Unit is shown in []. < >: EIA [inch] Code

(Part Number) **GJ** **M** **03** **3** **6C** **1E** **100** **G** **B01** **D**

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

① Product ID

② Series

③ Dimensions (LxW)

④ Temperature Characteristics

⑤ Rated Voltage

⑥ Capacitance Tolerance

⑦ Individual Specification Code

⑧ Dimension (T)

⑨ Capacitance

⑩ Packaging

Packaging Code in Part Number shows STD 180mm Reel Taping.

GJM Series Specifications and Test Methods

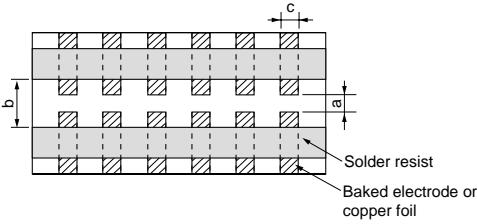
No.	Item	Specifications	Test Method																
		Temperature Compensating Type																	
1	Operating Temperature Range	−55 to +125°C	Reference Temperature: 25°C (2C, 3C, 4C: 20°C)																
2	Rated Voltage	See the previous pages.	The rated voltage is defined as the maximum voltage that may be applied continuously to the capacitor. When AC voltage is superimposed on DC voltage, V^{P-P} or V^{O-P} , whichever is larger, should be maintained within the rated voltage range.																
3	Appearance	No defects or abnormalities	Visual inspection																
4	Dimensions	Within the specified dimensions	Using calipers																
5	Dielectric Strength	No defects or abnormalities	No failure should be observed when 300% of the rated voltage is applied between the terminations for 1 to 5 seconds, provided the charge/discharge current is less than 50mA.																
6	Insulation Resistance (I.R.)	10,000MΩ min. or 500Ω · F min. (whichever is smaller)	The insulation resistance should be measured with a DC voltage not exceeding the rated voltage at 25°C and 75%RH max. and within 2 minutes of charging.																
7	Capacitance	Within the specified tolerance	The capacitance/Q should be measured at 25°C at the frequency and voltage shown in the table.																
8	Q	30pF and over: $Q \geq 1000$ 30pF and below: $Q \geq 400+20\%$ C: Nominal Capacitance (pF)	<table border="1"> <tr> <td>Frequency</td> <td>1±0.1MHz</td> </tr> <tr> <td>Voltage</td> <td>0.5 to 5Vrms</td> </tr> </table>	Frequency	1±0.1MHz	Voltage	0.5 to 5Vrms												
Frequency	1±0.1MHz																		
Voltage	0.5 to 5Vrms																		
9	Capacitance Temperature Characteristics	<table border="1"> <tr> <td>Temperature Coefficient</td> <td>Within the specified tolerance (Table A)</td> </tr> <tr> <td>Capacitance Drift</td> <td>Within ±0.2% or ±0.05pF (whichever is larger.)</td> </tr> </table>	Temperature Coefficient	Within the specified tolerance (Table A)	Capacitance Drift	Within ±0.2% or ±0.05pF (whichever is larger.)	<p>The capacitance change should be measured after 5 min. at each specified temperature stage. Temperature Compensating Type The temperature coefficient is determined using the capacitance measured in step 3 as a reference. When cycling the temperature sequentially from step 1 through 5, (5C: +25 to 125°C; other temp. coeffs.: +20 to 125°C) the capacitance should be within the specified tolerance for the temperature coefficient and capacitance change as in Table A. The capacitance drift is calculated by dividing the differences between the maximum and minimum measured values in steps 1, 3 and 5 by the capacitance value in step 3.</p> <table border="1"> <tr> <td>Step</td> <td>Temperature (°C)</td> </tr> <tr> <td>1</td> <td>Reference Temp. ±2</td> </tr> <tr> <td>2</td> <td>−55±3</td> </tr> <tr> <td>3</td> <td>Reference Temp. ±2</td> </tr> <tr> <td>4</td> <td>125±3</td> </tr> <tr> <td>5</td> <td>Reference Temp. ±2</td> </tr> </table>	Step	Temperature (°C)	1	Reference Temp. ±2	2	−55±3	3	Reference Temp. ±2	4	125±3	5	Reference Temp. ±2
Temperature Coefficient	Within the specified tolerance (Table A)																		
Capacitance Drift	Within ±0.2% or ±0.05pF (whichever is larger.)																		
Step	Temperature (°C)																		
1	Reference Temp. ±2																		
2	−55±3																		
3	Reference Temp. ±2																		
4	125±3																		
5	Reference Temp. ±2																		
10	Adhesive Strength of Termination	No removal of the terminations or other defect should occur.	<p>Solder the capacitor to the test jig (glass epoxy board) shown in Fig. 1 using a eutectic solder. Then apply a 5N* force in parallel with the test jig for 10±1 sec. The soldering should be done either with an iron or using the reflow method and should be conducted with care so that the soldering is uniform and free of defects such as heat shock.</p> <p>*2N (GJM03)</p>  <table border="1"> <tr> <td>Type</td> <td>a</td> <td>b</td> <td>c</td> </tr> <tr> <td>GJM03</td> <td>0.3</td> <td>0.9</td> <td>0.3</td> </tr> <tr> <td>GJM15</td> <td>0.4</td> <td>1.5</td> <td>0.5</td> </tr> </table> <p>(in mm)</p>	Type	a	b	c	GJM03	0.3	0.9	0.3	GJM15	0.4	1.5	0.5				
Type	a	b	c																
GJM03	0.3	0.9	0.3																
GJM15	0.4	1.5	0.5																

Fig. 1

Continued on the following page. 

For General GRM Series

Array GNM Series

Low ESL LL□ Series

High-Q GJM Series

High Frequency GQM Series

Monolithic Microchip GMA Series

For Bonding GMD Series

Product Information

GJM Series Specifications and Test Methods

Continued from the preceding page.

For General GRM Series

Array GNM Series

Low ESL LL□ Series

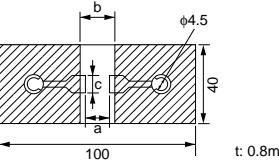
High-Q GJM Series

High Frequency GQM Series

Monolithic Microchip GMA Series

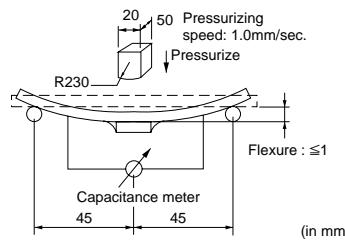
For Bonding GMD Series

Product Information

No.	Item	Specifications		Test Method										
		Temperature Compensating Type												
11	Vibration Resistance	Appearance	No defects or abnormalities											
		Capacitance	Within the specified tolerance											
		Q	30pF and over: $Q \geq 1000$ 30pF and below: $Q \geq 400+20C$ C: Nominal Capacitance (pF)											
12	Deflection	Appearance	No marking defects											
		Capacitance Change	Within $\pm 5\%$ or $\pm 0.5pF$ (whichever is larger)											
			 <p>Fig. 2</p> <table border="1"> <thead> <tr> <th>Type</th> <th>a</th> <th>b</th> <th>c</th> </tr> </thead> <tbody> <tr> <td>GJM03</td> <td>0.3</td> <td>0.9</td> <td>0.3</td> </tr> <tr> <td>GJM15</td> <td>0.4</td> <td>1.5</td> <td>0.5</td> </tr> </tbody> </table> <p>(in mm)</p>		Type	a	b	c	GJM03	0.3	0.9	0.3	GJM15	0.4
Type	a	b	c											
GJM03	0.3	0.9	0.3											
GJM15	0.4	1.5	0.5											
13	Solderability of Termination	75% of the terminations are to be soldered evenly and continuously.												
14	Resistance to Soldering Heat	The measured and observed characteristics should satisfy the specifications in the following table.												
		Appearance	No marking defects											
		Capacitance Change	Within $\pm 2.5\%$ or $\pm 0.25pF$ (whichever is larger)											
		Q	30pF and over: $Q \geq 1000$ 30pF and below: $Q \geq 400+20C$ C: Nominal Capacitance (pF)											
		I.R.	More than $10,000M\Omega$ or $500\Omega \cdot F$ (whichever is smaller)											
		Dielectric Strength	No failure											
15	Temperature Cycle	The measured and observed characteristics should satisfy the specifications in the following table.												
		Appearance	No marking defects											
		Capacitance Change	Within $\pm 2.5\%$ or $\pm 0.25pF$ (whichever is larger)											
		Q	30pF and over: $Q \geq 1000$ 30pF and below: $Q \geq 400+20C$ C: Nominal Capacitance (pF)											
		I.R.	More than $10,000M\Omega$ or $500\Omega \cdot F$ (whichever is smaller)											
		Dielectric Strength	No failure											
16	Humidity, Steady State	The measured and observed characteristics should satisfy the specifications in the following table.												
		Appearance	No marking defects											
		Capacitance Change	Within $\pm 5\%$ or $\pm 0.5pF$ (whichever is larger)											
		Q	30pF and below: $Q \geq 350$ 10pF and over, 30pF and below: $Q \geq 275 + \frac{5}{2} C$ 10pF and below: $Q \geq 200 + 10C$ C: Nominal Capacitance (pF)											
		I.R.	More than $10,000M\Omega$ or $500\Omega \cdot F$ (whichever is smaller)											

Solder the capacitor to the test jig (glass epoxy board) in the same manner and under the same conditions as (10). The capacitor should be subjected to a simple harmonic motion having a total amplitude of 1.5mm, the frequency being varied uniformly between the approximate limits of 10 and 55Hz. The frequency range, from 10 to 55Hz and return to 10Hz, should be traversed in approximately 1 minute. This motion should be applied for a period of 2 hours in each of 3 mutually perpendicular directions (total of 6 hours).

Solder the capacitor to the test jig (glass epoxy boards) shown in Fig. 2 using a eutectic solder. Then apply a force in the direction shown in Fig. 3. The soldering should be done by the reflow method and should be conducted with care so that the soldering is uniform and free of defects such as heat shock.



Immerse the capacitor in a solution of ethanol (JIS-K-8101) and rosin (JIS-K-5902) (25% rosin in weight proportion). Preheat at 80 to 120°C for 10 to 30 seconds. After preheating, immerse in eutectic solder solution for 2 ± 0.5 seconds at 230±5°C or Sn-3.0Ag-0.5Cu solder solution for 2 ± 0.5 seconds at 245±5°C.

Preheat the capacitor at 120 to 150°C for 1 minute. Immerse the capacitor in a eutectic solder or Sn-3.0Ag-0.5Cu solder solution at $270 \pm 5^\circ C$ for 10 ± 0.5 seconds. Let sit at room temperature for 24 ± 2 hours.

Fix the capacitor to the supporting jig in the same manner and under the same conditions as (10). Perform the five cycles according to the four heat treatments listed in the following table. Let sit for 24 ± 2 hours at room temperature, then measure.

Step	1	2	3	4
Temp. (°C)	Min. Operating Temp.+0/-3	Room Temp.	Max. Operating Temp.+3/-0	Room Temp.
Time (min.)	30±3	2 to 3	30±3	2 to 3

Let the capacitor sit at $40 \pm 2^\circ C$ and 90 to 95% humidity for 500 ± 12 hours. Remove and let sit for 24 ± 2 hours (temperature compensating type) at room temperature, then measure.

Continued on the following page.

GJM Series Specifications and Test Methods

Continued from the preceding page.

No.	Item	Specifications		Test Method
		Temperature Compensating Type		
17	Humidity Load	The measured and observed characteristics should satisfy the specifications in the following table.		
		Appearance	No marking defects	Apply the rated voltage at $40 \pm 2^\circ\text{C}$ and 90 to 95% humidity for 500 ± 12 hours. Remove and let sit for 24 ± 2 hours at room temperature, then measure. The charge/discharge current is less than 50mA.
		Capacitance Change	Within $\pm 7.5\%$ or $\pm 0.75\text{pF}$ (whichever is larger)	
		Q	30pF and over: $Q \geq 200$ 30pF and below: $Q \geq 100 + \frac{1}{3}C$ C: Nominal Capacitance (pF)	
		I.R.	More than $500\text{M}\Omega$ or $25\Omega \cdot \text{F}$ (whichever is smaller)	
18	High Temperature Load	The measured and observed characteristics should satisfy the specifications in the following table.		
		Appearance	No marking defects	Apply 200% of the rated voltage for 1000 ± 12 hours at the maximum operating temperature $\pm 3^\circ\text{C}$. Let sit for 24 ± 2 hours (temperature compensating type) at room temperature, then measure. The charge/discharge current is less than 50mA.
		Capacitance Change	Within $\pm 3\%$ or $\pm 0.3\text{pF}$ (whichever is larger)	
		Q	30pF and over: $Q \geq 350$ 10pF and over, 30pF and below: $Q \geq 275 + \frac{5}{2}C$ 10pF and below: $Q \geq 200 + 10C$ C: Nominal Capacitance (pF)	
		I.R.	More than $1,000\text{M}\Omega$ or $50\Omega \cdot \text{F}$ (whichever is smaller)	
19	ESR	0.1pF $\leq C \leq 1\text{pF}$: $350\text{m}\Omega \cdot \text{pF}$ below 1pF $< C \leq 5\text{pF}$: $300\text{m}\Omega$ below 5pF $< C \leq 10\text{pF}$: $250\text{m}\Omega$ below		The ESR should be measured at room temperature, and frequency $1 \pm 0.2\text{GHz}$ with the equivalent of BOONTON Model 34A.
		10pF $< C \leq 33\text{pF}$: $400\text{m}\Omega$ below		The ESR should be measured at room temperature, and frequency $500 \pm 50\text{MHz}$ with the equivalent of HP8753B.

Table A
(1)

Char. Code	Temp. Coeff. (ppm/°C) *1	Capacitance Change from 25°C Value (%)					
		-55°C		-30°C		-10°C	
		Max.	Min.	Max.	Min.	Max.	Min.
5C	0 ± 30	0.58	-0.24	0.40	-0.17	0.25	-0.11
6C	0 ± 60	0.87	-0.48	0.60	-0.33	0.38	-0.21

*1: Nominal values denote the temperature coefficient within a range of 25 to 125°C.

(2)

Char.	Nominal Values (ppm/°C) *2	Capacitance Change from 20°C Value (%)					
		-55°C		-25°C		-10°C	
		Max.	Min.	Max.	Min.	Max.	Min.
2C	0 ± 60	0.82	-0.45	0.49	-0.27	0.33	-0.18
3C	0 ± 120	1.37	-0.90	0.82	-0.54	0.55	-0.36
4C	0 ± 250	2.56	-1.88	1.54	-1.13	1.02	-0.75

*2: Nominal values denote the temperature coefficient within a range of 20 to 125°C.

For General
GRM Series

Array
GNM Series

Low ESL
LL□ Series

High-Q
GJM Series

High Frequency
GQM Series

Monolithic Microchip
GMA Series

For Bonding
GMD Series

Product Information

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Murata:

[GJM1555C1H2R7CB01D](#) [GJM0335C1E1R8BB01E](#) [GJM0335C1E6R0CB01D](#) [GJM0335C1E2R0CB01E](#)
[GJM0335C1E4R0BB01E](#) [GJM0335C1E1R0BB01E](#) [GJM0335C1E5R0BB01E](#) [GJM0335C1E3R0BB01E](#)
[GJM1555C1H6R0CB01D](#) [GJM1555C1H7R0CB01D](#) [GJM0335C1E3R6BB01E](#) [GJM1555C1H180GB01D](#)
[GJM0335C1E5R6CB01D](#) [GJM0335C1ER30BB01D](#) [GJM1555C1H3R9BB01D](#) [GJM1555C1H100JB01D](#)
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