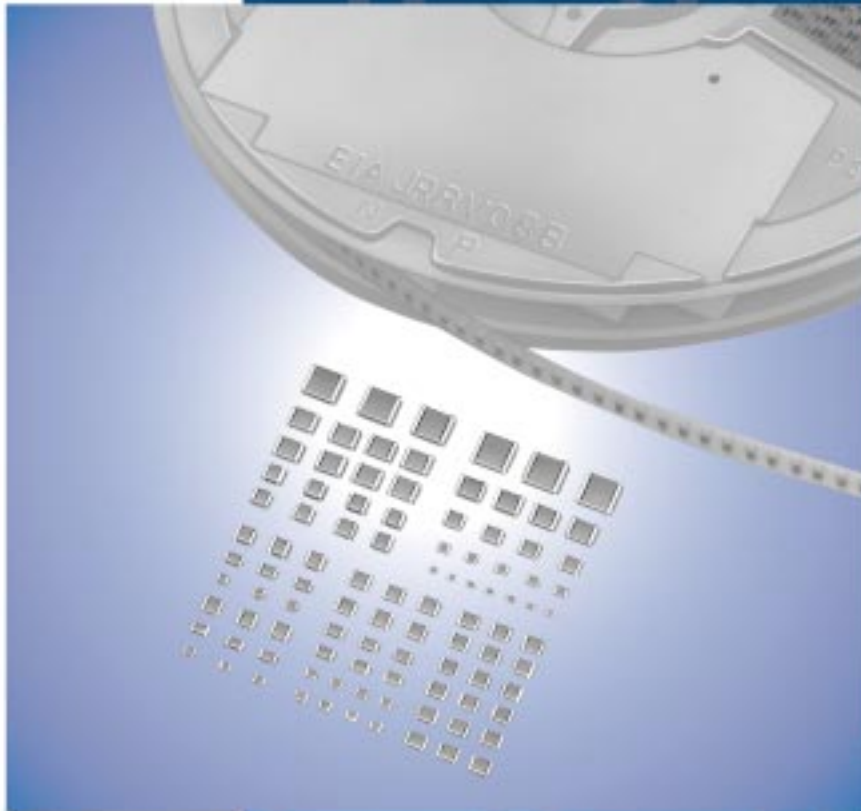


Chip Monolithic Ceramic Capacitors



● 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	COG *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	COH *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


⑥ 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)

⑦ 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 1.1 to 9.9pF	0.1pF 1pF Step and E24 Series
C	±0.25pF	CΔ	GRM/GJM	≤9.9pF	0.1pF
		except CΔ	GRM	≤5pF	* 1pF
		CΔ	GQM	≤1pF 1.1 to 9.9pF	0.1pF 1pF Step and E24 Series
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

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

Chip Monolithic Ceramic Capacitors



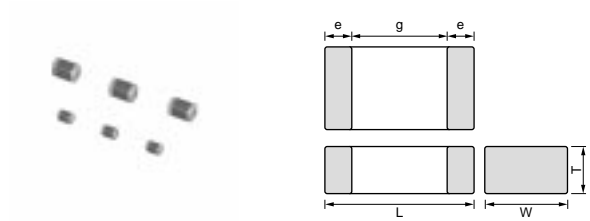
High-Q Type GJM Series

■ 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
GOM Series

Monolithic Microchip
GMA Series

For Bonding
GMD Series

Product Information

Capacitance Table

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

		3 ex.3: T Dimension [mm]												
Capacitance	LxW [mm]	0.6x0.3 (03) <0201>		1.0x0.5 (15) <0402>	Capacitance	LxW [mm]	0.6x0.3 (03) <0201>		1.0x0.5 (15) <0402>	Capacitance	LxW [mm]	0.6x0.3 (03) <0201>		1.0x0.5 (15) <0402>
		Rated Voltage [Vdc]	25 (1E)	6.3 (0J)			50 (1H)	Rated Voltage [Vdc]	25 (1E)			6.3 (0J)	50 (1H)	Rated Voltage [Vdc]
0.1pF(R10)				5					5					5
0.2pF(R20)	3			5					5					5
0.3pF(R30)	3			5					5					5
0.4pF(R40)	3			5					5					5
0.5pF(R50)	3			5					5					5
0.6pF(R60)	3			5					5					5
0.7pF(R70)	3			5					5					5
0.8pF(R80)	3			5					5					5
0.9pF(R90)	3			5					5					5
1.0pF(1R0)	3			5					5					5
1.1pF(1R1)	3			5					5					5
1.2pF(1R2)	3			5					5					5
1.3pF(1R3)	3			5					5					5
1.4pF(1R4)	3			5					5					5
1.5pF(1R5)	3			5					5					5
1.6pF(1R6)	3			5					5					5
1.7pF(1R7)	3			5					5					5
1.8pF(1R8)	3			5					5					5
1.9pF(1R9)	3			5					5					5
2.0pF(2R0)	3			5					5					5
2.1pF(2R1)	3			5					5					5
2.2pF(2R2)	3			5					5					5
2.3pF(2R3)	3			5					5					5
2.4pF(2R4)	3			5					5					5
2.5pF(2R5)	3			5					5					5
2.6pF(2R6)	3			5					5					5
2.7pF(2R7)	3			5					5					5
2.8pF(2R8)	3			5					5					5
2.9pF(2R9)	3			5					5					5
3.0pF(3R0)	3			5					5					5
3.1pF(3R1)	3			5					5					5
3.2pF(3R2)	3			5					5					5
3.3pF(3R3)	3			5					5					5
3.4pF(3R4)	3			5					5					5
3.5pF(3R5)	3			5					5					5
3.6pF(3R6)	3			5					5					5
3.7pF(3R7)	3			5					5					5
3.8pF(3R8)	3			5					5					5
3.9pF(3R9)	3			5					5					5
4.0pF(4R0)	3			5					5					5
4.1pF(4R1)	3			5					5					5
4.2pF(4R2)	3			5					5					5
4.3pF(4R3)	3			5					5					5
4.4pF(4R4)	3			5					5					5
4.5pF(4R5)	3			5					5					5
4.6pF(4R6)	3			5					5					5
4.7pF(4R7)	3			5					5					5
4.8pF(4R8)	3			5					5					5
4.9pF(4R9)	3			5					5					5
5.0pF(5R0)	3			5					5					5
5.1pF(5R1)	3			5					5					5
5.2pF(5R2)	3			5					5					5
5.3pF(5R3)	3			5					5					5
5.4pF(5R4)	3			5					5					5
5.5pF(5R5)	3			5					5					5
5.6pF(5R6)	3			5					5					5
5.7pF(5R7)	3			5					5					5
5.8pF(5R8)	3			5					5					5
5.9pF(5R9)	3			5					5					5
6.0pF(6R0)	3			5					5					5
6.1pF(6R1)	3			5					5					5
6.2pF(6R2)	3			5					5					5
6.3pF(6R3)	3			5					5					5
6.4pF(6R4)	3			5					5					5
6.5pF(6R5)	3			5					5					5
6.6pF(6R6)	3			5					5					5
6.7pF(6R7)	3			5					5					5
6.8pF(6R8)	3			5					5					5
6.9pF(6R9)	3			5					5					5
7.0pF(7R0)	3			5					5					5
7.1pF(7R1)	3			5					5					5
7.2pF(7R2)	3			5					5					5
7.3pF(7R3)	3			5					5					5
7.4pF(7R4)	3			5					5					5
7.5pF(7R5)	3			5					5					5
7.6pF(7R6)	3			5					5					5
7.7pF(7R7)	3			5					5					5
7.8pF(7R8)	3			5					5					5
7.9pF(7R9)	3			5					5					5
8.0pF(8R0)	3			5					5					5
8.1pF(8R1)	3			5					5					5
8.2pF(8R2)	3			5					5					5
8.3pF(8R3)	3			5					5					5
8.4pF(8R4)	3			5					5					5
8.5pF(8R5)	3			5					5					5
8.6pF(8R6)	3			5					5					5
8.7pF(8R7)	3			5					5					5
8.8pF(8R8)	3			5					5					5
8.9pF(8R9)	3			5					5					5
9.0pF(9R0)	3			5					5					5
9.1pF(9R1)	3			5					5					5
9.2pF(9R2)	3			5					5					5
9.3pF(9R3)	3			5					5					5
9.4pF(9R4)	3			5					5					5
9.5pF(9R5)	3			5					5					5
9.6pF(9R6)	3			5					5					5
9.7pF(9R7)	3			5					5					5
9.8pF(9R8)	3			5					5					5
9.9pF(9R9)	3			5					5					5
10pF(100)	3			5					5					5
11pF(110)	3			5					5					5
12pF(120)	3			5					5					5
13pF(130)	3			5					5					5
15pF(150)	3			5					5					5
16pF(160)	3			5					5					5
18pF(180)	3			5					5					5
20pF(200)	3			5					5					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	
2.0pF(2R0)	±0.05pF(W)	GJM0335C1E2R0WB01D	GJM1555C1H2R0WB01D
	±0.1pF(B)	GJM0335C1E2R0BB01D	GJM1555C1H2R0BB01D
	±0.25pF(C)	GJM0335C1E2R0CB01D	GJM1555C1H2R0CB01D
2.1pF(2R1)	±0.05pF(W)	GJM0335C1E2R1WB01D	GJM1555C1H2R1WB01D
	±0.1pF(B)	GJM0335C1E2R1BB01D	GJM1555C1H2R1BB01D
	±0.25pF(C)	GJM0335C1E2R1CB01D	GJM1555C1H2R1CB01D
2.2pF(2R2)	±0.05pF(W)	GJM0335C1E2R2WB01D	GJM1555C1H2R2WB01D
	±0.1pF(B)	GJM0335C1E2R2BB01D	GJM1555C1H2R2BB01D
	±0.25pF(C)	GJM0335C1E2R2CB01D	GJM1555C1H2R2CB01D
2.3pF(2R3)	±0.05pF(W)	GJM0335C1E2R3WB01D	GJM1555C1H2R3WB01D
	±0.1pF(B)	GJM0335C1E2R3BB01D	GJM1555C1H2R3BB01D
	±0.25pF(C)	GJM0335C1E2R3CB01D	GJM1555C1H2R3CB01D
2.4pF(2R4)	±0.05pF(W)	GJM0335C1E2R4WB01D	GJM1555C1H2R4WB01D
	±0.1pF(B)	GJM0335C1E2R4BB01D	GJM1555C1H2R4BB01D
	±0.25pF(C)	GJM0335C1E2R4CB01D	GJM1555C1H2R4CB01D
2.5pF(2R5)	±0.05pF(W)	GJM0335C1E2R5WB01D	GJM1555C1H2R5WB01D
	±0.1pF(B)	GJM0335C1E2R5BB01D	GJM1555C1H2R5BB01D
	±0.25pF(C)	GJM0335C1E2R5CB01D	GJM1555C1H2R5CB01D
2.6pF(2R6)	±0.05pF(W)	GJM0335C1E2R6WB01D	GJM1555C1H2R6WB01D
	±0.1pF(B)	GJM0335C1E2R6BB01D	GJM1555C1H2R6BB01D
	±0.25pF(C)	GJM0335C1E2R6CB01D	GJM1555C1H2R6CB01D
2.7pF(2R7)	±0.05pF(W)	GJM0335C1E2R7WB01D	GJM1555C1H2R7WB01D
	±0.1pF(B)	GJM0335C1E2R7BB01D	GJM1555C1H2R7BB01D
	±0.25pF(C)	GJM0335C1E2R7CB01D	GJM1555C1H2R7CB01D
2.8pF(2R8)	±0.05pF(W)	GJM0335C1E2R8WB01D	GJM1555C1H2R8WB01D
	±0.1pF(B)	GJM0335C1E2R8BB01D	GJM1555C1H2R8BB01D
	±0.25pF(C)	GJM0335C1E2R8CB01D	GJM1555C1H2R8CB01D
2.9pF(2R9)	±0.05pF(W)	GJM0335C1E2R9WB01D	GJM1555C1H2R9WB01D
	±0.1pF(B)	GJM0335C1E2R9BB01D	GJM1555C1H2R9BB01D
	±0.25pF(C)	GJM0335C1E2R9CB01D	GJM1555C1H2R9CB01D
3.0pF(3R0)	±0.05pF(W)	GJM0335C1E3R0WB01D	GJM1555C1H3R0WB01D
	±0.1pF(B)	GJM0335C1E3R0BB01D	GJM1555C1H3R0BB01D
	±0.25pF(C)	GJM0335C1E3R0CB01D	GJM1555C1H3R0CB01D
3.1pF(3R1)	±0.05pF(W)	GJM0335C1E3R1WB01D	GJM1555C1H3R1WB01D
	±0.1pF(B)	GJM0335C1E3R1BB01D	GJM1555C1H3R1BB01D
	±0.25pF(C)	GJM0335C1E3R1CB01D	GJM1555C1H3R1CB01D
3.2pF(3R2)	±0.05pF(W)	GJM0335C1E3R2WB01D	GJM1555C1H3R2WB01D
	±0.1pF(B)	GJM0335C1E3R2BB01D	GJM1555C1H3R2BB01D
	±0.25pF(C)	GJM0335C1E3R2CB01D	GJM1555C1H3R2CB01D
3.3pF(3R3)	±0.05pF(W)	GJM0335C1E3R3WB01D	GJM1555C1H3R3WB01D
	±0.1pF(B)	GJM0335C1E3R3BB01D	GJM1555C1H3R3BB01D
	±0.25pF(C)	GJM0335C1E3R3CB01D	GJM1555C1H3R3CB01D
3.4pF(3R4)	±0.05pF(W)	GJM0335C1E3R4WB01D	GJM1555C1H3R4WB01D
	±0.1pF(B)	GJM0335C1E3R4BB01D	GJM1555C1H3R4BB01D
	±0.25pF(C)	GJM0335C1E3R4CB01D	GJM1555C1H3R4CB01D
3.5pF(3R5)	±0.05pF(W)	GJM0335C1E3R5WB01D	GJM1555C1H3R5WB01D
	±0.1pF(B)	GJM0335C1E3R5BB01D	GJM1555C1H3R5BB01D
	±0.25pF(C)	GJM0335C1E3R5CB01D	GJM1555C1H3R5CB01D

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 | ① Product ID | ② Series | ③ Dimensions (LxW) | ④ Dimension (T) |
| | ① | ② | ③ | ④ | ⑤ | ⑥ | ⑦ | ⑧ | ⑨ | ⑩ | ⑤ Temperature Characteristics | ⑥ Rated Voltage | ⑦ Capacitance | ⑧ Capacitance Tolerance |
| | | | | | | | | | | | ⑨ Individual Specification Code | ⑩ Packaging | | |

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	GJM1555C1H3R6WB01D
	±0.1pF(B)	GJM0335C1E3R6BB01D	GJM1555C1H3R6BB01D
	±0.25pF(C)	GJM0335C1E3R6CB01D	GJM1555C1H3R6CB01D
3.7pF(3R7)	±0.05pF(W)	GJM0335C1E3R7WB01D	GJM1555C1H3R7WB01D
	±0.1pF(B)	GJM0335C1E3R7BB01D	GJM1555C1H3R7BB01D
	±0.25pF(C)	GJM0335C1E3R7CB01D	GJM1555C1H3R7CB01D
3.8pF(3R8)	±0.05pF(W)	GJM0335C1E3R8WB01D	GJM1555C1H3R8WB01D
	±0.1pF(B)	GJM0335C1E3R8BB01D	GJM1555C1H3R8BB01D
	±0.25pF(C)	GJM0335C1E3R8CB01D	GJM1555C1H3R8CB01D
3.9pF(3R9)	±0.05pF(W)	GJM0335C1E3R9WB01D	GJM1555C1H3R9WB01D
	±0.1pF(B)	GJM0335C1E3R9BB01D	GJM1555C1H3R9BB01D
	±0.25pF(C)	GJM0335C1E3R9CB01D	GJM1555C1H3R9CB01D
4.0pF(4R0)	±0.05pF(W)	GJM0335C1E4R0WB01D	GJM1555C1H4R0WB01D
	±0.1pF(B)	GJM0335C1E4R0BB01D	GJM1555C1H4R0BB01D
	±0.25pF(C)	GJM0335C1E4R0CB01D	GJM1555C1H4R0CB01D
4.1pF(4R1)	±0.05pF(W)	GJM0335C1E4R1WB01D	GJM1555C1H4R1WB01D
	±0.1pF(B)	GJM0335C1E4R1BB01D	GJM1555C1H4R1BB01D
	±0.25pF(C)	GJM0335C1E4R1CB01D	GJM1555C1H4R1CB01D
4.2pF(4R2)	±0.05pF(W)	GJM0335C1E4R2WB01D	GJM1555C1H4R2WB01D
	±0.1pF(B)	GJM0335C1E4R2BB01D	GJM1555C1H4R2BB01D
	±0.25pF(C)	GJM0335C1E4R2CB01D	GJM1555C1H4R2CB01D
4.3pF(4R3)	±0.05pF(W)	GJM0335C1E4R3WB01D	GJM1555C1H4R3WB01D
	±0.1pF(B)	GJM0335C1E4R3BB01D	GJM1555C1H4R3BB01D
	±0.25pF(C)	GJM0335C1E4R3CB01D	GJM1555C1H4R3CB01D
4.4pF(4R4)	±0.05pF(W)	GJM0335C1E4R4WB01D	GJM1555C1H4R4WB01D
	±0.1pF(B)	GJM0335C1E4R4BB01D	GJM1555C1H4R4BB01D
	±0.25pF(C)	GJM0335C1E4R4CB01D	GJM1555C1H4R4CB01D
4.5pF(4R5)	±0.05pF(W)	GJM0335C1E4R5WB01D	GJM1555C1H4R5WB01D
	±0.1pF(B)	GJM0335C1E4R5BB01D	GJM1555C1H4R5BB01D
	±0.25pF(C)	GJM0335C1E4R5CB01D	GJM1555C1H4R5CB01D
4.6pF(4R6)	±0.05pF(W)	GJM0335C1E4R6WB01D	GJM1555C1H4R6WB01D
	±0.1pF(B)	GJM0335C1E4R6BB01D	GJM1555C1H4R6BB01D
	±0.25pF(C)	GJM0335C1E4R6CB01D	GJM1555C1H4R6CB01D
4.7pF(4R7)	±0.05pF(W)	GJM0335C1E4R7WB01D	GJM1555C1H4R7WB01D
	±0.1pF(B)	GJM0335C1E4R7BB01D	GJM1555C1H4R7BB01D
	±0.25pF(C)	GJM0335C1E4R7CB01D	GJM1555C1H4R7CB01D
4.8pF(4R8)	±0.05pF(W)	GJM0335C1E4R8WB01D	GJM1555C1H4R8WB01D
	±0.1pF(B)	GJM0335C1E4R8BB01D	GJM1555C1H4R8BB01D
	±0.25pF(C)	GJM0335C1E4R8CB01D	GJM1555C1H4R8CB01D
4.9pF(4R9)	±0.05pF(W)	GJM0335C1E4R9WB01D	GJM1555C1H4R9WB01D
	±0.1pF(B)	GJM0335C1E4R9BB01D	GJM1555C1H4R9BB01D
	±0.25pF(C)	GJM0335C1E4R9CB01D	GJM1555C1H4R9CB01D
5.0pF(5R0)	±0.05pF(W)	GJM0335C1E5R0WB01D	GJM1555C1H5R0WB01D
	±0.1pF(B)	GJM0335C1E5R0BB01D	GJM1555C1H5R0BB01D
	±0.25pF(C)	GJM0335C1E5R0CB01D	GJM1555C1H5R0CB01D
5.1pF(5R1)	±0.05pF(W)	GJM0335C1E5R1WB01D	GJM1555C1H5R1WB01D
	±0.1pF(B)	GJM0335C1E5R1BB01D	GJM1555C1H5R1BB01D
	±0.25pF(C)	GJM0335C1E5R1CB01D	GJM1555C1H5R1CB01D
	±0.5pF(D)	GJM0335C1E5R1DB01D	GJM1555C1H5R1DB01D

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	
6.4pF(6R4)	±0.05pF(W)	GJM0335C1E6R4WB01D	GJM1555C1H6R4WB01D
	±0.1pF(B)	GJM0335C1E6R4BB01D	GJM1555C1H6R4BB01D
	±0.25pF(C)	GJM0335C1E6R4CB01D	GJM1555C1H6R4CB01D
	±0.5pF(D)	GJM0335C1E6R4DB01D	GJM1555C1H6R4DB01D
6.5pF(6R5)	±0.05pF(W)	GJM0335C1E6R5WB01D	GJM1555C1H6R5WB01D
	±0.1pF(B)	GJM0335C1E6R5BB01D	GJM1555C1H6R5BB01D
	±0.25pF(C)	GJM0335C1E6R5CB01D	GJM1555C1H6R5CB01D
	±0.5pF(D)	GJM0335C1E6R5DB01D	GJM1555C1H6R5DB01D
6.6pF(6R6)	±0.05pF(W)	GJM0335C1E6R6WB01D	GJM1555C1H6R6WB01D
	±0.1pF(B)	GJM0335C1E6R6BB01D	GJM1555C1H6R6BB01D
	±0.25pF(C)	GJM0335C1E6R6CB01D	GJM1555C1H6R6CB01D
	±0.5pF(D)	GJM0335C1E6R6DB01D	GJM1555C1H6R6DB01D
6.7pF(6R7)	±0.05pF(W)	GJM0335C1E6R7WB01D	GJM1555C1H6R7WB01D
	±0.1pF(B)	GJM0335C1E6R7BB01D	GJM1555C1H6R7BB01D
	±0.25pF(C)	GJM0335C1E6R7CB01D	GJM1555C1H6R7CB01D
	±0.5pF(D)	GJM0335C1E6R7DB01D	GJM1555C1H6R7DB01D
6.8pF(6R8)	±0.05pF(W)	GJM0335C1E6R8WB01D	GJM1555C1H6R8WB01D
	±0.1pF(B)	GJM0335C1E6R8BB01D	GJM1555C1H6R8BB01D
	±0.25pF(C)	GJM0335C1E6R8CB01D	GJM1555C1H6R8CB01D
	±0.5pF(D)	GJM0335C1E6R8DB01D	GJM1555C1H6R8DB01D
6.9pF(6R9)	±0.05pF(W)	GJM0336C1E6R9WB01D	GJM1555C1H6R9WB01D
	±0.1pF(B)	GJM0336C1E6R9BB01D	GJM1555C1H6R9BB01D
	±0.25pF(C)	GJM0336C1E6R9CB01D	GJM1555C1H6R9CB01D
	±0.5pF(D)	GJM0336C1E6R9DB01D	GJM1555C1H6R9DB01D
7.0pF(7R0)	±0.05pF(W)	GJM0336C1E7R0WB01D	GJM1555C1H7R0WB01D
	±0.1pF(B)	GJM0336C1E7R0BB01D	GJM1555C1H7R0BB01D
	±0.25pF(C)	GJM0336C1E7R0CB01D	GJM1555C1H7R0CB01D
	±0.5pF(D)	GJM0336C1E7R0DB01D	GJM1555C1H7R0DB01D
7.1pF(7R1)	±0.05pF(W)	GJM0336C1E7R1WB01D	GJM1555C1H7R1WB01D
	±0.1pF(B)	GJM0336C1E7R1BB01D	GJM1555C1H7R1BB01D
	±0.25pF(C)	GJM0336C1E7R1CB01D	GJM1555C1H7R1CB01D
	±0.5pF(D)	GJM0336C1E7R1DB01D	GJM1555C1H7R1DB01D
7.2pF(7R2)	±0.05pF(W)	GJM0336C1E7R2WB01D	GJM1555C1H7R2WB01D
	±0.1pF(B)	GJM0336C1E7R2BB01D	GJM1555C1H7R2BB01D
	±0.25pF(C)	GJM0336C1E7R2CB01D	GJM1555C1H7R2CB01D
	±0.5pF(D)	GJM0336C1E7R2DB01D	GJM1555C1H7R2DB01D
7.3pF(7R3)	±0.05pF(W)	GJM0336C1E7R3WB01D	GJM1555C1H7R3WB01D
	±0.1pF(B)	GJM0336C1E7R3BB01D	GJM1555C1H7R3BB01D
	±0.25pF(C)	GJM0336C1E7R3CB01D	GJM1555C1H7R3CB01D
	±0.5pF(D)	GJM0336C1E7R3DB01D	GJM1555C1H7R3DB01D
7.4pF(7R4)	±0.05pF(W)	GJM0336C1E7R4WB01D	GJM1555C1H7R4WB01D
	±0.1pF(B)	GJM0336C1E7R4BB01D	GJM1555C1H7R4BB01D
	±0.25pF(C)	GJM0336C1E7R4CB01D	GJM1555C1H7R4CB01D
	±0.5pF(D)	GJM0336C1E7R4DB01D	GJM1555C1H7R4DB01D
7.5pF(7R5)	±0.05pF(W)	GJM0336C1E7R5WB01D	GJM1555C1H7R5WB01D
	±0.1pF(B)	GJM0336C1E7R5BB01D	GJM1555C1H7R5BB01D
	±0.25pF(C)	GJM0336C1E7R5CB01D	GJM1555C1H7R5CB01D
	±0.5pF(D)	GJM0336C1E7R5DB01D	GJM1555C1H7R5DB01D
7.6pF(7R6)	±0.05pF(W)	GJM0336C1E7R6WB01D	GJM1555C1H7R6WB01D
	±0.1pF(B)	GJM0336C1E7R6BB01D	GJM1555C1H7R6BB01D
	±0.25pF(C)	GJM0336C1E7R6CB01D	GJM1555C1H7R6CB01D
	±0.5pF(D)	GJM0336C1E7R6DB01D	GJM1555C1H7R6DB01D

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

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	GJM1555C1H8R9WB01D
	±0.1pF(B)	GJM0336C1E8R9BB01D	GJM1555C1H8R9BB01D
	±0.25pF(C)	GJM0336C1E8R9CB01D	GJM1555C1H8R9CB01D
	±0.5pF(D)	GJM0336C1E8R9DB01D	GJM1555C1H8R9DB01D
9.0pF(9R0)	±0.05pF(W)	GJM0336C1E9R0WB01D	GJM1555C1H9R0WB01D
	±0.1pF(B)	GJM0336C1E9R0BB01D	GJM1555C1H9R0BB01D
	±0.25pF(C)	GJM0336C1E9R0CB01D	GJM1555C1H9R0CB01D
	±0.5pF(D)	GJM0336C1E9R0DB01D	GJM1555C1H9R0DB01D
9.1pF(9R1)	±0.05pF(W)	GJM0336C1E9R1WB01D	GJM1555C1H9R1WB01D
	±0.1pF(B)	GJM0336C1E9R1BB01D	GJM1555C1H9R1BB01D
	±0.25pF(C)	GJM0336C1E9R1CB01D	GJM1555C1H9R1CB01D
	±0.5pF(D)	GJM0336C1E9R1DB01D	GJM1555C1H9R1DB01D
9.2pF(9R2)	±0.05pF(W)	GJM0336C1E9R2WB01D	GJM1555C1H9R2WB01D
	±0.1pF(B)	GJM0336C1E9R2BB01D	GJM1555C1H9R2BB01D
	±0.25pF(C)	GJM0336C1E9R2CB01D	GJM1555C1H9R2CB01D
	±0.5pF(D)	GJM0336C1E9R2DB01D	GJM1555C1H9R2DB01D
9.3pF(9R3)	±0.05pF(W)	GJM0336C1E9R3WB01D	GJM1555C1H9R3WB01D
	±0.1pF(B)	GJM0336C1E9R3BB01D	GJM1555C1H9R3BB01D
	±0.25pF(C)	GJM0336C1E9R3CB01D	GJM1555C1H9R3CB01D
	±0.5pF(D)	GJM0336C1E9R3DB01D	GJM1555C1H9R3DB01D
9.4pF(9R4)	±0.05pF(W)	GJM0336C1E9R4WB01D	GJM1555C1H9R4WB01D
	±0.1pF(B)	GJM0336C1E9R4BB01D	GJM1555C1H9R4BB01D
	±0.25pF(C)	GJM0336C1E9R4CB01D	GJM1555C1H9R4CB01D
	±0.5pF(D)	GJM0336C1E9R4DB01D	GJM1555C1H9R4DB01D
9.5pF(9R5)	±0.05pF(W)	GJM0336C1E9R5WB01D	GJM1555C1H9R5WB01D
	±0.1pF(B)	GJM0336C1E9R5BB01D	GJM1555C1H9R5BB01D
	±0.25pF(C)	GJM0336C1E9R5CB01D	GJM1555C1H9R5CB01D
	±0.5pF(D)	GJM0336C1E9R5DB01D	GJM1555C1H9R5DB01D
9.6pF(9R6)	±0.05pF(W)	GJM0336C1E9R6WB01D	GJM1555C1H9R6WB01D
	±0.1pF(B)	GJM0336C1E9R6BB01D	GJM1555C1H9R6BB01D
	±0.25pF(C)	GJM0336C1E9R6CB01D	GJM1555C1H9R6CB01D
	±0.5pF(D)	GJM0336C1E9R6DB01D	GJM1555C1H9R6DB01D
9.7pF(9R7)	±0.05pF(W)	GJM0336C1E9R7WB01D	GJM1555C1H9R7WB01D
	±0.1pF(B)	GJM0336C1E9R7BB01D	GJM1555C1H9R7BB01D
	±0.25pF(C)	GJM0336C1E9R7CB01D	GJM1555C1H9R7CB01D
	±0.5pF(D)	GJM0336C1E9R7DB01D	GJM1555C1H9R7DB01D
9.8pF(9R8)	±0.05pF(W)	GJM0336C1E9R8WB01D	GJM1555C1H9R8WB01D
	±0.1pF(B)	GJM0336C1E9R8BB01D	GJM1555C1H9R8BB01D
	±0.25pF(C)	GJM0336C1E9R8CB01D	GJM1555C1H9R8CB01D
	±0.5pF(D)	GJM0336C1E9R8DB01D	GJM1555C1H9R8DB01D
9.9pF(9R9)	±0.05pF(W)	GJM0336C1E9R9WB01D	GJM1555C1H9R9WB01D
	±0.1pF(B)	GJM0336C1E9R9BB01D	GJM1555C1H9R9BB01D
	±0.25pF(C)	GJM0336C1E9R9CB01D	GJM1555C1H9R9CB01D
	±0.5pF(D)	GJM0336C1E9R9DB01D	GJM1555C1H9R9DB01D

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)	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

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

(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 Dimension (T)
- ⑤ Temperature Characteristics
- ⑥ Rated Voltage
- ⑦ Capacitance
- ⑧ Capacitance Tolerance
- ⑨ Individual Specification Code
- 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: $Q \geq 400 + 20C$ C: Nominal Capacitance (pF)		<table border="1" style="margin-left: auto; margin-right: auto;"> <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	Temperature Coefficient	Within the specified tolerance (Table A)	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.				
		Capacitance Drift	Within ±0.2% or ±0.05pF (whichever is larger.)					
10	Adhesive Strength of Termination	No removal of the terminations or other defect should occur.		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. *2N (GJM03)				

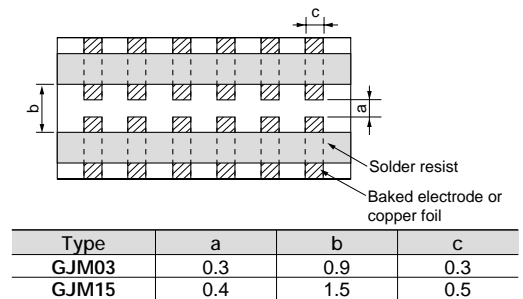


Fig. 1

Continued on the following page.

For General GRM Series

Array GNM Series

Low ESL LL□ Series

High-Q GJM Series

High Frequency GOM Series

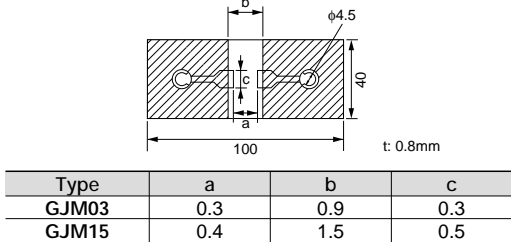
Monolithic Microchip GMA Series

For Bonding GMD Series

Product Information

GJM Series Specifications and Test Methods

☐ Continued from the preceding page.

No.	Item	Specifications		Test Method											
		Temperature Compensating Type													
11	Vibration Resistance	Appearance	No defects or abnormalities		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).										
		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		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.										
		Capacitance Change	Within $\pm 5\%$ or $\pm 0.5\text{pF}$ (whichever is larger)												
		 <table border="1" data-bbox="375 862 885 929"> <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 style="text-align: center;">(in mm)</p>		Type		a	b	c	GJM03	0.3	0.9	0.3	GJM15	0.4	1.5
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.		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 $230 \pm 5^\circ\text{C}$ or Sn-3.0Ag-0.5Cu solder solution for 2 ± 0.5 seconds at $245 \pm 5^\circ\text{C}$.											
14	Resistance to Soldering Heat	The measured and observed characteristics should satisfy the specifications in the following table.			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 $270 \pm 5^\circ\text{C}$ for 10 ± 0.5 seconds. Let sit at room temperature for 24 ± 2 hours.										
		Appearance	No marking defects												
		Capacitance Change	Within $\pm 2.5\%$ or $\pm 0.25\text{pF}$ (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 10,000MΩ or $500\Omega \cdot F$ (whichever is smaller)												
15	Temperature Cycle	The measured and observed characteristics should satisfy the specifications in the following table.			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.										
		Appearance	No marking defects												
		Capacitance Change	Within $\pm 2.5\%$ or $\pm 0.25\text{pF}$ (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 10,000MΩ or $500\Omega \cdot F$ (whichever is smaller)												
16	Humidity, Steady State	The measured and observed characteristics should satisfy the specifications in the following table.			Let the capacitor sit at $40 \pm 2^\circ\text{C}$ 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.										
		Appearance	No marking defects												
		Capacitance Change	Within $\pm 5\%$ or $\pm 0.5\text{pF}$ (whichever is larger)												
		Q	30pF and below: $Q \geq 350$ 10pF and over, 30pF and below: $Q \geq 275 + \frac{5}{C}$ 10pF and below: $Q \geq 200+10C$ C: Nominal Capacitance (pF)												
		I.R.	More than 10,000MΩ or $500\Omega \cdot F$ (whichever is smaller)												

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.		Apply the rated voltage at 40±2°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.
		Appearance	No marking defects	
		Capacitance Change	Within ±7.5% or ±0.75pF (whichever is larger)	
		Q	30pF and over: Q≥200 30pF and below: Q≥100+ $\frac{1}{5}$ C C: Nominal Capacitance (pF)	
	I.R.	More than 500MΩ or 25Ω · F (whichever is smaller)		
18	High Temperature Load	The measured and observed characteristics should satisfy the specifications in the following table.		Apply 200% of the rated voltage for 1000±12 hours at the maximum operating temperature ±3°C. Let sit for 24±2 hours (temperature compensating type) at room temperature, then measure. The charge/discharge current is less than 50mA.
		Appearance	No marking defects	
		Capacitance Change	Within ±3% or ±0.3pF (whichever is larger)	
		Q	30pF and over: Q≥350 10pF and over, 30pF and below: Q≥275+ $\frac{5}{2}$ C 10pF and below: Q≥200+10C C: Nominal Capacitance (pF)	
	I.R.	More than 1,000MΩ or 50Ω · F (whichever is smaller)		
19	ESR	0.1pF<C≤1pF: 350mΩ · pF below 1pF<C≤5pF: 300mΩ below 5pF<C≤10pF: 250mΩ below		The ESR should be measured at room temperature, and frequency 1±0.2GHz with the equivalent of BOONTON Model 34A.
		10pF<C≤33pF: 400mΩ below		The ESR should be measured at room temperature, and frequency 500±50MHz 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 GJM Series

Low ESL LL□ Series

High-Q GJM Series

High Frequency GOM 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](#) [GJM0335C1E1R5BB01D](#) [GJM0335C1E6R0CB01D](#)
[GJM0335C1E2R0CB01E](#) [GJM0335C1E4R0BB01E](#) [GJM0335C1E1R0BB01E](#) [GJM0335C1E5R0BB01E](#)
[GJM0335C1E3R0BB01E](#) [GJM1555C1H6R0CB01D](#) [GJM1555C1H7R0CB01D](#) [GJM0335C1E3R6BB01E](#)
[GJM1555C1H180GB01D](#) [GJM0335C1E5R6CB01D](#) [GJM0335C1ER30BB01D](#) [GJM1555C1H3R9BB01D](#)
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