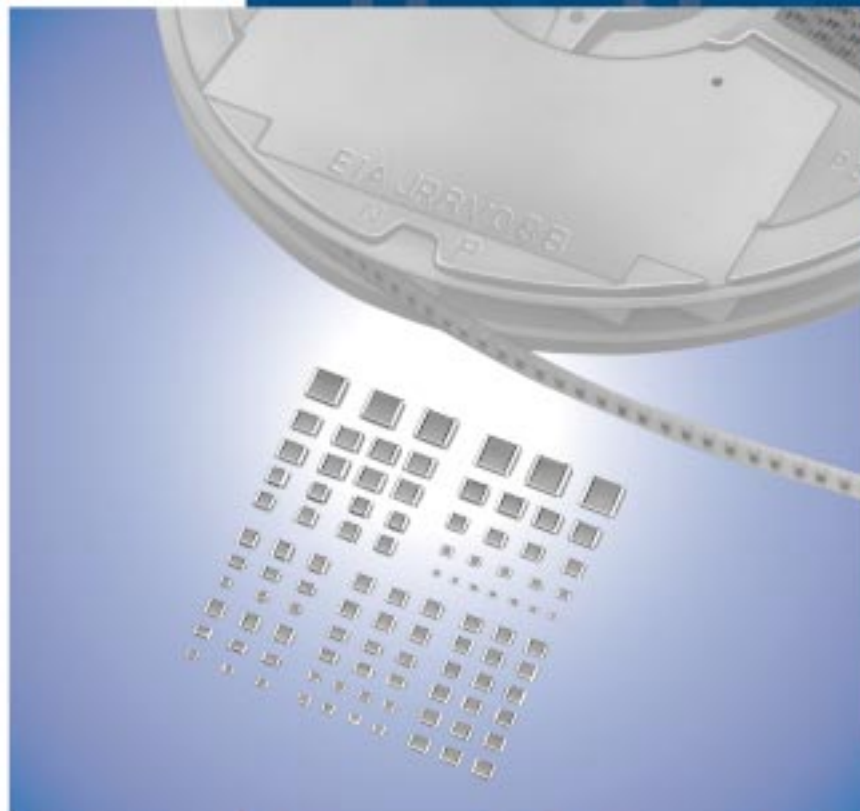


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• This PDF catalog has only typical specifications because there is no space for detailed specifications. Therefore, please approve our product specifications or transact the approval sheet for product specifications before ordering.

C02E.pdf  
10.12.20

# Chip Monolithic Ceramic Capacitors



**muRata**

*Innovator  
in Electronics*

Murata  
Manufacturing Co., Ltd.

Cat.No.C02E-16

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

#### ③ Dimensions (L×W)

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

#### ④ Dimension (T) (Except GNM)

Code	Dimension (T)
<b>2</b>	0.2mm
<b>3</b>	0.3mm
<b>5</b>	0.5mm
<b>6</b>	0.6mm
<b>7</b>	0.7mm
<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>F</b>	3.2mm
<b>M</b>	1.15mm
<b>N</b>	1.35mm
<b>Q</b>	1.5mm
<b>R</b>	1.8mm
<b>S</b>	2.8mm
<b>X</b>	Depends on individual standards.

#### ④ Elements (GNM Only)

Code	Elements
<b>2</b>	2-elements
<b>4</b>	4-elements

Continued on the following page.

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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. ☐

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●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


⑥Rated 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)

⑦Capacitance

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

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⑨ Capacitance Tolerance

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

\* E24 series is also available.

⑩ Individual Specification Code (Except **LLR**)

Expressed by three figures.

⑪ ESR (**LLR** Only)

Code	ESR
<b>E01</b>	100mΩ
<b>E03</b>	220mΩ
<b>E05</b>	470mΩ
<b>E07</b>	1000mΩ

⑫ Packaging

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

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# Chip Monolithic Ceramic Capacitors (Medium Voltage)



## For Information Devices GR4 Series

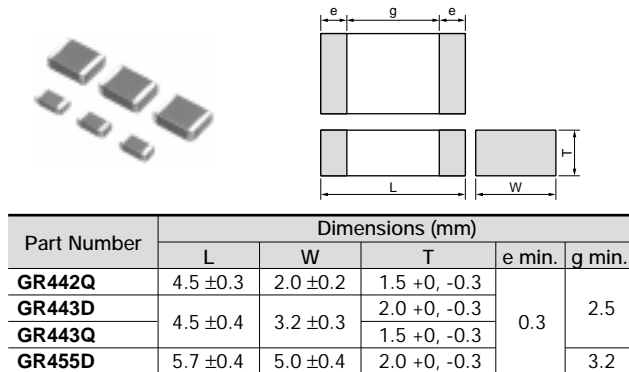
### ■ Features

1. These items are designed specifically for telecommunications devices (IEEE802.3) in Ethernet LAN and primary-secondary coupling for DC-DC converters.
2. A new monolithic structure for small, high capacitance capable of operating at high voltage levels
3. Sn-plated external electrodes realize good solderability.
4. Only for reflow soldering

### ■ Applications

1. Ideal for use on telecommunications devices in Ethernet LAN
2. Ideal for use as primary-secondary coupling for DC-DC converters

Do not use these products in any Automotive Power train or Safety equipment including Battery charger for Electric Vehicles and Plug-in Hybrid.  
 Only Murata products clearly stipulated as "for Automotive use" can be used for automobile applications such as Power train and Safety equipment.



Part Number	Rated Voltage (V)	TC Code (Standard)	Capacitance (pF)	Length L (mm)	Width W (mm)	Thickness T (mm)	Electrode g min. (mm)	Electrode e (mm)
GR442QR73D101KW01L	DC2000	X7R (EIA)	100 ±10%	4.5	2.0	1.5	2.5	0.3 min.
GR442QR73D121KW01L	DC2000	X7R (EIA)	120 ±10%	4.5	2.0	1.5	2.5	0.3 min.
GR442QR73D151KW01L	DC2000	X7R (EIA)	150 ±10%	4.5	2.0	1.5	2.5	0.3 min.
GR442QR73D181KW01L	DC2000	X7R (EIA)	180 ±10%	4.5	2.0	1.5	2.5	0.3 min.
GR442QR73D221KW01L	DC2000	X7R (EIA)	220 ±10%	4.5	2.0	1.5	2.5	0.3 min.
GR442QR73D271KW01L	DC2000	X7R (EIA)	270 ±10%	4.5	2.0	1.5	2.5	0.3 min.
GR442QR73D331KW01L	DC2000	X7R (EIA)	330 ±10%	4.5	2.0	1.5	2.5	0.3 min.
GR442QR73D391KW01L	DC2000	X7R (EIA)	390 ±10%	4.5	2.0	1.5	2.5	0.3 min.
GR442QR73D471KW01L	DC2000	X7R (EIA)	470 ±10%	4.5	2.0	1.5	2.5	0.3 min.
GR442QR73D561KW01L	DC2000	X7R (EIA)	560 ±10%	4.5	2.0	1.5	2.5	0.3 min.
GR442QR73D681KW01L	DC2000	X7R (EIA)	680 ±10%	4.5	2.0	1.5	2.5	0.3 min.
GR442QR73D821KW01L	DC2000	X7R (EIA)	820 ±10%	4.5	2.0	1.5	2.5	0.3 min.
GR442QR73D102KW01L	DC2000	X7R (EIA)	1000 ±10%	4.5	2.0	1.5	2.5	0.3 min.
GR442QR73D122KW01L	DC2000	X7R (EIA)	1200 ±10%	4.5	2.0	1.5	2.5	0.3 min.
GR442QR73D152KW01L	DC2000	X7R (EIA)	1500 ±10%	4.5	2.0	1.5	2.5	0.3 min.
GR443QR73D182KW01L	DC2000	X7R (EIA)	1800 ±10%	4.5	3.2	1.5	2.5	0.3 min.
GR443QR73D222KW01L	DC2000	X7R (EIA)	2200 ±10%	4.5	3.2	1.5	2.5	0.3 min.
GR443QR73D272KW01L	DC2000	X7R (EIA)	2700 ±10%	4.5	3.2	1.5	2.5	0.3 min.
GR443QR73D332KW01L	DC2000	X7R (EIA)	3300 ±10%	4.5	3.2	1.5	2.5	0.3 min.
GR443QR73D392KW01L	DC2000	X7R (EIA)	3900 ±10%	4.5	3.2	1.5	2.5	0.3 min.
GR443DR73D472KW01L	DC2000	X7R (EIA)	4700 ±10%	4.5	3.2	2.0	2.5	0.3 min.
GR455DR73D103KW01L	DC2000	X7R (EIA)	10000 ±10%	5.7	5.0	2.0	3.2	0.3 min.

For General Purpose GRM/GRJ Series

Only for Applications GR4 Series

AC250V Type GA2 Series

Safety Standard Certified GA3 Series

Product Information

## GR4 Series Specifications and Test Methods

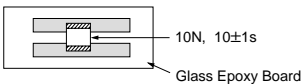
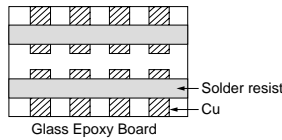
For General Purpose GRM/GRJ Series

Only for Applications GR4 Series


AC250V Type GA2 Series

Safety Standard Certified GA3 Series

Product Information

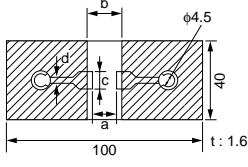
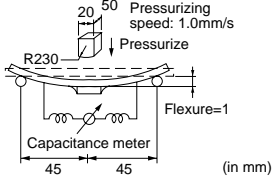
No.	Item	Specifications	Test Method												
1	Operating Temperature Range	-55 to +125°C	—												
2	Appearance	No defects or abnormalities	Visual inspection												
3	Dimensions	Within the specified dimensions	Using calipers and micrometers												
4	Dielectric Strength	No defects or abnormalities	No failure should be observed when voltage in the table is applied between the terminations, provided the charge/discharge current is less than 50mA. <table border="1"> <thead> <tr> <th>Rated Voltage</th> <th>Test Voltage</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td rowspan="2">DC2kV</td> <td>120% of the rated voltage</td> <td>60±1 sec.</td> </tr> <tr> <td>AC1500V(r.m.s.)</td> <td>60±1 sec.</td> </tr> </tbody> </table>	Rated Voltage	Test Voltage	Time	DC2kV	120% of the rated voltage	60±1 sec.	AC1500V(r.m.s.)	60±1 sec.				
Rated Voltage	Test Voltage	Time													
DC2kV	120% of the rated voltage	60±1 sec.													
	AC1500V(r.m.s.)	60±1 sec.													
5	Pulse Voltage	No self healing breakdowns or flash-overs have taken place in the capacitor.	10 impulses of alternating polarity are subjected. (5 impulses for each polarity) The interval between impulses is 60 sec. Applied Pulse: 1.2/50µs Applied Voltage: 2.5kVo-p												
6	Insulation Resistance (I.R.)	More than 6,000MΩ	The insulation resistance should be measured with DC500±50V and within 60±5 sec. of charging.												
7	Capacitance	Within the specified tolerance	The capacitance/D.F. should be measured at a frequency of 1±0.2kHz and a voltage of AC1±0.2V(r.m.s.)												
8	Dissipation Factor (D.F.)	0.025 max.													
9	Capacitance Temperature Characteristics	Cap. Change within ±15% (Temp. Range: -55 to +125°C)	The capacitance measurement should be made at each step specified in the Table. <table border="1"> <thead> <tr> <th>Step</th> <th>Temperature (°C)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>25±2</td> </tr> <tr> <td>2</td> <td>Min. Operating Temp.±3</td> </tr> <tr> <td>3</td> <td>25±2</td> </tr> <tr> <td>4</td> <td>Max. Operating Temp.±2</td> </tr> <tr> <td>5</td> <td>25±2</td> </tr> </tbody> </table> <p>•Pretreatment Perform a heat treatment at 150±10°C for 60±5 min. and then let sit for 24±2 hrs. at room condition.*</p>	Step	Temperature (°C)	1	25±2	2	Min. Operating Temp.±3	3	25±2	4	Max. Operating Temp.±2	5	25±2
Step	Temperature (°C)														
1	25±2														
2	Min. Operating Temp.±3														
3	25±2														
4	Max. Operating Temp.±2														
5	25±2														
10	Adhesive Strength of Termination	No removal of the terminations or other defect should occur.	Solder the capacitor to the testing jig (glass epoxy board) shown in Fig. 1. Then apply 10N force in the direction of the arrow. The soldering should be done using the reflow method and should be conducted with care so that the soldering is uniform and free of defects such as heat shock.  Fig. 1												
11	Vibration Resistance	Appearance	No defects or abnormalities												
		Capacitance	Within the specified tolerance												
		D.F.	0.025 max.												
			Solder the capacitor to the test jig (glass epoxy board). 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 min. This motion should be applied for a period of 2 hrs. in each of 3 mutually perpendicular directions (total of 6 hrs.). 												

\* "Room condition" Temperature: 15 to 35°C, Relative humidity: 45 to 75%, Atmospheric pressure: 86 to 106kPa

Continued on the following page. 

## GR4 Series Specifications and Test Methods

Continued from the preceding page.

No.	Item	Specifications	Test Method																				
12	Deflection	No marking defects	Solder the capacitor to the testing jig (glass epoxy board) shown in Fig. 2. Then apply a force in the direction shown in Fig. 3. The soldering should be done using the reflow method and should be conducted with care so that the soldering is uniform and free of defects such as heat shock.																				
		<div style="text-align: center;">  <p>Fig. 2</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>LXW (mm)</th> <th colspan="4">Dimension (mm)</th> </tr> <tr> <th></th> <th>a</th> <th>b</th> <th>c</th> <th>d</th> </tr> </thead> <tbody> <tr> <td>4.5X2.0</td> <td>3.5</td> <td>7.0</td> <td>2.4</td> <td rowspan="3" style="text-align: center;">1.0</td> </tr> <tr> <td>4.5X3.2</td> <td>3.5</td> <td>7.0</td> <td>3.7</td> </tr> <tr> <td>5.7X5.0</td> <td>4.5</td> <td>8.0</td> <td>5.6</td> </tr> </tbody> </table> </div>		LXW (mm)	Dimension (mm)					a	b	c	d	4.5X2.0	3.5	7.0	2.4	1.0	4.5X3.2	3.5	7.0	3.7	5.7X5.0
LXW (mm)	Dimension (mm)																						
	a	b	c	d																			
4.5X2.0	3.5	7.0	2.4	1.0																			
4.5X3.2	3.5	7.0	3.7																				
5.7X5.0	4.5	8.0	5.6																				
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). Immerse in solder solution for 2±0.5 sec. Immersing speed: 25±2.5mm/s Temp. of solder: 245±5°C Lead Free Solder (Sn-3.0Ag-0.5Cu) 235±5°C H60A or H63A Eutectic Solder																				
			<div style="text-align: center;">  <p>Fig. 3</p> </div>																				
14	Resistance to Soldering Heat	Appearance	No marking defects																				
		Capacitance Change	Within ±10%																				
		D.F.	0.025 max.																				
		I.R.	More than 1,000MΩ																				
		Dielectric Strength	In accordance with item No.4																				
15	Temperature Cycle	Appearance	No marking defects																				
		Capacitance Change	Within ±15%																				
		D.F.	0.05 max.																				
		I.R.	More than 3,000MΩ																				
		Dielectric Strength	In accordance with item No.4																				
16	Humidity (Steady State)	Appearance	No marking defects																				
		Capacitance Change	Within ±15%																				
		D.F.	0.05 max.																				
		I.R.	More than 1,000MΩ																				
		Dielectric Strength	In accordance with item No.4																				

\* "Room condition" Temperature: 15 to 35°C, Relative humidity: 45 to 75%, Atmospheric pressure: 86 to 106kPa

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For General Purpose GRM/GRJ Series

Only for Applications GR4 Series

AC250V Type GA2 Series

Safety Standard Certified GA3 Series

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