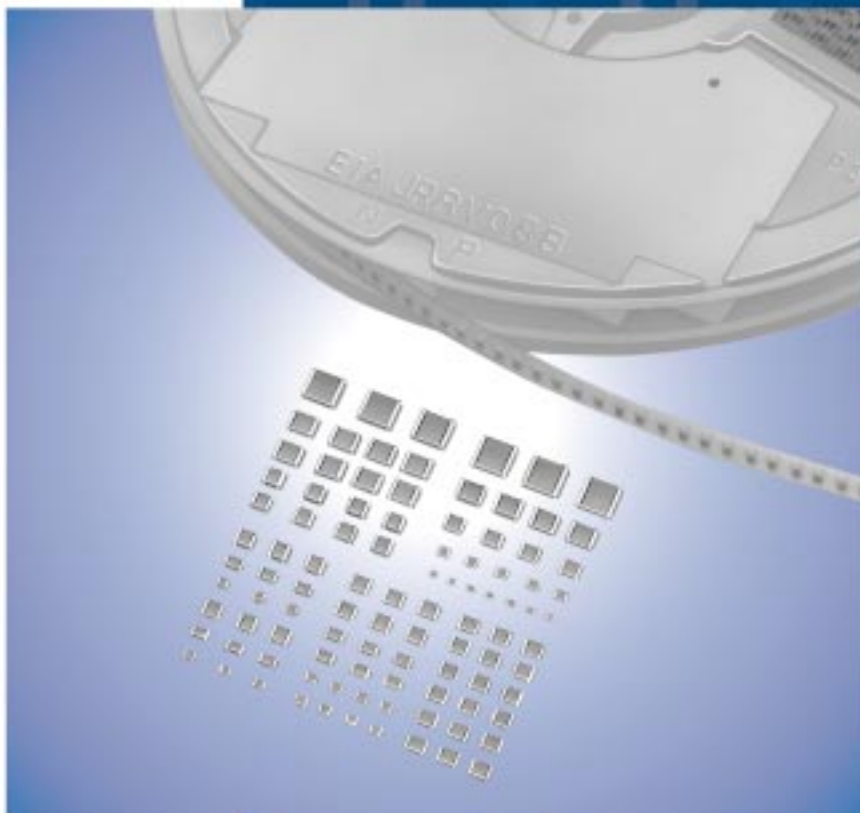


# Chip Monolithic Ceramic Capacitors



## ● 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. 

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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     |

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                   |
| C    | ±0.25pF                          | CΔ                  | GRM/GJM         | ≤9.9pF           | 0.1pF                   |
|      |                                  | except CΔ           | GRM             | ≤5pF             | * 1pF                   |
|      |                                  | CΔ                  | GQM             | ≤1pF             | 0.1pF                   |
|      |                                  |                     |                 | 1.1 to 9.9pF     | 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    |
|------------|--------|
| <b>E01</b> | 100mΩ  |
| <b>E03</b> | 220mΩ  |
| <b>E05</b> | 470mΩ  |
| <b>E07</b> | 1000mΩ |

### ⑩ 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



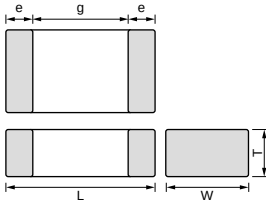
## High-Q Type GJM Series

### ■ 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

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

| <div><div></div><div>Capacitance</div></div> | LxW<br>[mm]            | 0.6x0.3<br>(03)<br><0201> |             | 1.0x0.5<br>(15)<br><0402> |
|----------------------------------------------|------------------------|---------------------------|-------------|---------------------------|
|                                              | Rated Voltage<br>[Vdc] | 25<br>(1E)                | 6.3<br>(0J) | 50<br>(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                         |

| Capacitance | LxW<br>[mm] | 0.6x0.3<br>(03)<br><0201> |             | 1.0x0.5<br>(15)<br><0402> |
|-------------|-------------|---------------------------|-------------|---------------------------|
|             |             | 25<br>(1E)                | 6.3<br>(0J) | 50<br>(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           |                           |

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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) |                    | GJM1555C1HR10WB01D |
|                   | ±0.1pF(B)  |                    | GJM1555C1HR10BB01D |
| 0.2pF(R20)        | ±0.05pF(W) | GJM0335C1ER20WB01D | GJM1555C1HR20WB01D |
|                   | ±0.1pF(B)  | GJM0335C1ER20BB01D | GJM1555C1HR20BB01D |
| 0.3pF(R30)        | ±0.05pF(W) | GJM0335C1ER30WB01D | GJM1555C1HR30WB01D |
|                   | ±0.1pF(B)  | GJM0335C1ER30BB01D | GJM1555C1HR30BB01D |
| 0.4pF(R40)        | ±0.05pF(W) | GJM0335C1ER40WB01D | GJM1555C1HR40WB01D |
|                   | ±0.1pF(B)  | GJM0335C1ER40BB01D | GJM1555C1HR40BB01D |
| 0.5pF(R50)        | ±0.05pF(W) | GJM0335C1ER50WB01D | GJM1555C1HR50WB01D |
|                   | ±0.1pF(B)  | GJM0335C1ER50BB01D | GJM1555C1HR50BB01D |
| 0.6pF(R60)        | ±0.05pF(W) | GJM0335C1ER60WB01D | GJM1555C1HR60WB01D |
|                   | ±0.1pF(B)  | GJM0335C1ER60BB01D | GJM1555C1HR60BB01D |
| 0.7pF(R70)        | ±0.05pF(W) | GJM0335C1ER70WB01D | GJM1555C1HR70WB01D |
|                   | ±0.1pF(B)  | GJM0335C1ER70BB01D | GJM1555C1HR70BB01D |
| 0.8pF(R80)        | ±0.05pF(W) | GJM0335C1ER80WB01D | GJM1555C1HR80WB01D |
|                   | ±0.1pF(B)  | GJM0335C1ER80BB01D | GJM1555C1HR80BB01D |
| 0.9pF(R90)        | ±0.05pF(W) | GJM0335C1ER90WB01D | GJM1555C1HR90WB01D |
|                   | ±0.1pF(B)  | GJM0335C1ER90BB01D | GJM1555C1HR90BB01D |
| 1.0pF(1R0)        | ±0.05pF(W) | GJM0335C1E1R0WB01D | GJM1555C1H1R0WB01D |
|                   | ±0.1pF(B)  | GJM0335C1E1R0BB01D | GJM1555C1H1R0BB01D |
|                   | ±0.25pF(C) | GJM0335C1E1R0CB01D | GJM1555C1H1R0CB01D |
| 1.1pF(1R1)        | ±0.05pF(W) | GJM0335C1E1R1WB01D | GJM1555C1H1R1WB01D |
|                   | ±0.1pF(B)  | GJM0335C1E1R1BB01D | GJM1555C1H1R1BB01D |
|                   | ±0.25pF(C) | GJM0335C1E1R1CB01D | GJM1555C1H1R1CB01D |
| 1.2pF(1R2)        | ±0.05pF(W) | GJM0335C1E1R2WB01D | GJM1555C1H1R2WB01D |
|                   | ±0.1pF(B)  | GJM0335C1E1R2BB01D | GJM1555C1H1R2BB01D |
|                   | ±0.25pF(C) | GJM0335C1E1R2CB01D | GJM1555C1H1R2CB01D |
| 1.3pF(1R3)        | ±0.05pF(W) | GJM0335C1E1R3WB01D | GJM1555C1H1R3WB01D |
|                   | ±0.1pF(B)  | GJM0335C1E1R3BB01D | GJM1555C1H1R3BB01D |
|                   | ±0.25pF(C) | GJM0335C1E1R3CB01D | GJM1555C1H1R3CB01D |
| 1.4pF(1R4)        | ±0.05pF(W) | GJM0335C1E1R4WB01D | GJM1555C1H1R4WB01D |
|                   | ±0.1pF(B)  | GJM0335C1E1R4BB01D | GJM1555C1H1R4BB01D |
|                   | ±0.25pF(C) | GJM0335C1E1R4CB01D | GJM1555C1H1R4CB01D |
| 1.5pF(1R5)        | ±0.05pF(W) | GJM0335C1E1R5WB01D | GJM1555C1H1R5WB01D |
|                   | ±0.1pF(B)  | GJM0335C1E1R5BB01D | GJM1555C1H1R5BB01D |
|                   | ±0.25pF(C) | GJM0335C1E1R5CB01D | GJM1555C1H1R5CB01D |
| 1.6pF(1R6)        | ±0.05pF(W) | GJM0335C1E1R6WB01D | GJM1555C1H1R6WB01D |
|                   | ±0.1pF(B)  | GJM0335C1E1R6BB01D | GJM1555C1H1R6BB01D |
|                   | ±0.25pF(C) | GJM0335C1E1R6CB01D | GJM1555C1H1R6CB01D |
| 1.7pF(1R7)        | ±0.05pF(W) | GJM0335C1E1R7WB01D | GJM1555C1H1R7WB01D |
|                   | ±0.1pF(B)  | GJM0335C1E1R7BB01D | GJM1555C1H1R7BB01D |
|                   | ±0.25pF(C) | GJM0335C1E1R7CB01D | GJM1555C1H1R7CB01D |
| 1.8pF(1R8)        | ±0.05pF(W) | GJM0335C1E1R8WB01D | GJM1555C1H1R8WB01D |
|                   | ±0.1pF(B)  | GJM0335C1E1R8BB01D | GJM1555C1H1R8BB01D |
|                   | ±0.25pF(C) | GJM0335C1E1R8CB01D | GJM1555C1H1R8CB01D |
| 1.9pF(1R9)        | ±0.05pF(W) | GJM0335C1E1R9WB01D | GJM1555C1H1R9WB01D |
|                   | ±0.1pF(B)  | GJM0335C1E1R9BB01D | GJM1555C1H1R9BB01D |
|                   | ±0.25pF(C) | GJM0335C1E1R9CB01D | GJM1555C1H1R9CB01D |

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

1

2

3

4

5

6

7

8

9

10

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.



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        |                    |
| 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

2

3

4

5

6

7

8

9

10

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

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9

10

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        |                    |
| 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        |                    |
| 7.7pF(7R7)        | ±0.05pF(W) | GJM0336C1E7R7WB01D | GJM1555C1H7R7WB01D |
|                   | ±0.1pF(B)  | GJM0336C1E7R7BB01D | GJM1555C1H7R7BB01D |
|                   | ±0.25pF(C) | GJM0336C1E7R7CB01D | GJM1555C1H7R7CB01D |
|                   | ±0.5pF(D)  | GJM0336C1E7R7DB01D | GJM1555C1H7R7DB01D |
| 7.8pF(7R8)        | ±0.05pF(W) | GJM0336C1E7R8WB01D | GJM1555C1H7R8WB01D |
|                   | ±0.1pF(B)  | GJM0336C1E7R8BB01D | GJM1555C1H7R8BB01D |
|                   | ±0.25pF(C) | GJM0336C1E7R8CB01D | GJM1555C1H7R8CB01D |
|                   | ±0.5pF(D)  | GJM0336C1E7R8DB01D | GJM1555C1H7R8DB01D |
| 7.9pF(7R9)        | ±0.05pF(W) | GJM0336C1E7R9WB01D | GJM1555C1H7R9WB01D |
|                   | ±0.1pF(B)  | GJM0336C1E7R9BB01D | GJM1555C1H7R9BB01D |
|                   | ±0.25pF(C) | GJM0336C1E7R9CB01D | GJM1555C1H7R9CB01D |
|                   | ±0.5pF(D)  | GJM0336C1E7R9DB01D | GJM1555C1H7R9DB01D |
| 8.0pF(8R0)        | ±0.05pF(W) | GJM0336C1E8R0WB01D | GJM1555C1H8R0WB01D |
|                   | ±0.1pF(B)  | GJM0336C1E8R0BB01D | GJM1555C1H8R0BB01D |
|                   | ±0.25pF(C) | GJM0336C1E8R0CB01D | GJM1555C1H8R0CB01D |
|                   | ±0.5pF(D)  | GJM0336C1E8R0DB01D | GJM1555C1H8R0DB01D |
| 8.1pF(8R1)        | ±0.05pF(W) | GJM0336C1E8R1WB01D | GJM1555C1H8R1WB01D |
|                   | ±0.1pF(B)  | GJM0336C1E8R1BB01D | GJM1555C1H8R1BB01D |
|                   | ±0.25pF(C) | GJM0336C1E8R1CB01D | GJM1555C1H8R1CB01D |
|                   | ±0.5pF(D)  | GJM0336C1E8R1DB01D | GJM1555C1H8R1DB01D |
| 8.2pF(8R2)        | ±0.05pF(W) | GJM0336C1E8R2WB01D | GJM1555C1H8R2WB01D |
|                   | ±0.1pF(B)  | GJM0336C1E8R2BB01D | GJM1555C1H8R2BB01D |
|                   | ±0.25pF(C) | GJM0336C1E8R2CB01D | GJM1555C1H8R2CB01D |
|                   | ±0.5pF(D)  | GJM0336C1E8R2DB01D | GJM1555C1H8R2DB01D |
| 8.3pF(8R3)        | ±0.05pF(W) | GJM0336C1E8R3WB01D | GJM1555C1H8R3WB01D |
|                   | ±0.1pF(B)  | GJM0336C1E8R3BB01D | GJM1555C1H8R3BB01D |
|                   | ±0.25pF(C) | GJM0336C1E8R3CB01D | GJM1555C1H8R3CB01D |
|                   | ±0.5pF(D)  | GJM0336C1E8R3DB01D | GJM1555C1H8R3DB01D |
| 8.4pF(8R4)        | ±0.05pF(W) | GJM0336C1E8R4WB01D | GJM1555C1H8R4WB01D |
|                   | ±0.1pF(B)  | GJM0336C1E8R4BB01D | GJM1555C1H8R4BB01D |
|                   | ±0.25pF(C) | GJM0336C1E8R4CB01D | GJM1555C1H8R4CB01D |
|                   | ±0.5pF(D)  | GJM0336C1E8R4DB01D | GJM1555C1H8R4DB01D |
| 8.5pF(8R5)        | ±0.05pF(W) | GJM0336C1E8R5WB01D | GJM1555C1H8R5WB01D |
|                   | ±0.1pF(B)  | GJM0336C1E8R5BB01D | GJM1555C1H8R5BB01D |
|                   | ±0.25pF(C) | GJM0336C1E8R5CB01D | GJM1555C1H8R5CB01D |
|                   | ±0.5pF(D)  | GJM0336C1E8R5DB01D | GJM1555C1H8R5DB01D |
| 8.6pF(8R6)        | ±0.05pF(W) | GJM0336C1E8R6WB01D | GJM1555C1H8R6WB01D |
|                   | ±0.1pF(B)  | GJM0336C1E8R6BB01D | GJM1555C1H8R6BB01D |
|                   | ±0.25pF(C) | GJM0336C1E8R6CB01D | GJM1555C1H8R6CB01D |
|                   | ±0.5pF(D)  | GJM0336C1E8R6DB01D | GJM1555C1H8R6DB01D |
| 8.7pF(8R7)        | ±0.05pF(W) | GJM0336C1E8R7WB01D | GJM1555C1H8R7WB01D |
|                   | ±0.1pF(B)  | GJM0336C1E8R7BB01D | GJM1555C1H8R7BB01D |
|                   | ±0.25pF(C) | GJM0336C1E8R7CB01D | GJM1555C1H8R7CB01D |
|                   | ±0.5pF(D)  | GJM0336C1E8R7DB01D | GJM1555C1H8R7DB01D |
| 8.8pF(8R8)        | ±0.05pF(W) | GJM0336C1E8R8WB01D | GJM1555C1H8R8WB01D |
|                   | ±0.1pF(B)  | GJM0336C1E8R8BB01D | GJM1555C1H8R8BB01D |
|                   | ±0.25pF(C) | GJM0336C1E8R8CB01D | GJM1555C1H8R8CB01D |
|                   | ±0.5pF(D)  | GJM0336C1E8R8DB01D | GJM1555C1H8R8DB01D |

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

1

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3

4

5

6

7

8

9

10

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 | 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

(Part Number)

GJ

M

03

3

6C

1E

100

G

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.

## GJM Series Specifications and Test Methods

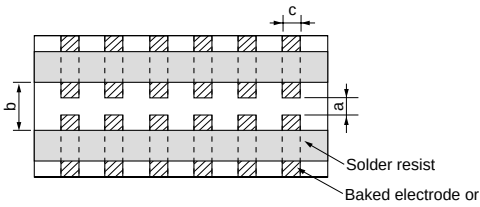
| No.       | Item                                    | Specifications                                                                                    |                                                | Test Method                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           |          |         |              |       |     |     |     |       |     |     |     |
|-----------|-----------------------------------------|---------------------------------------------------------------------------------------------------|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|---------|--------------|-------|-----|-----|-----|-------|-----|-----|-----|
|           |                                         | Temperature Compensating Type                                                                     |                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           |          |         |              |       |     |     |     |       |     |     |     |
| 1         | Operating Temperature Range             | -55 to +125℃                                                                                      |                                                | Reference Temperature: 25℃<br>(2C, 3C, 4C: 20℃)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           |          |         |              |       |     |     |     |       |     |     |     |
| 2         | Rated Voltage                           | See the previous pages.                                                                           |                                                | The rated voltage is defined as the maximum voltage that may be applied continuously to the capacitor.<br>When AC voltage is superimposed on DC voltage, $V^{P-P}$ or $V^{Q-P}$ , 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℃ and 75%RH max. and within 2 minutes of charging.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |           |          |         |              |       |     |     |     |       |     |     |     |
| 7         | Capacitance                             | Within the specified tolerance                                                                    |                                                | The capacitance/Q should be measured at 25℃ at the frequency and voltage shown in the table.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           |          |         |              |       |     |     |     |       |     |     |     |
| 8         | Q                                       | 30pF and over: $Q \geq 1000$<br>30pF and below: $Q \geq 400 + 20C$<br>C: Nominal Capacitance (pF) |                                                | <table><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.<br>Temperature Compensating Type<br>The temperature coefficient is determined using the capacitance measured in step 3 as a reference.<br>When cycling the temperature sequentially from step 1 through 5, (5C: +25 to 125℃: other temp. coeffs.: +20 to 125℃) the capacitance should be within the specified tolerance for the temperature coefficient and capacitance change as in Table A.<br>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.                                      |                                                | <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 style="text-align: right;">*2N (GJM03)</p> <div><table><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 style="text-align: right;">(in mm)</p></div> | 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

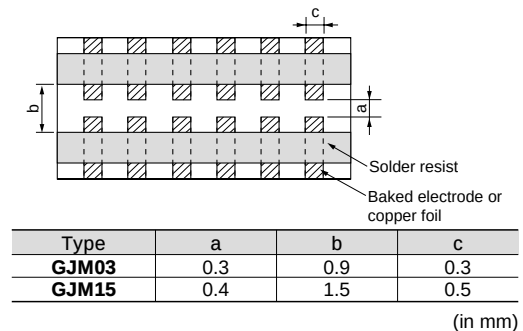


Fig. 1

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



For General  
GRM Series

Array  
GNM Series

Low ESL  
LL□ Series

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GJM Series

High Frequency  
GQM Series

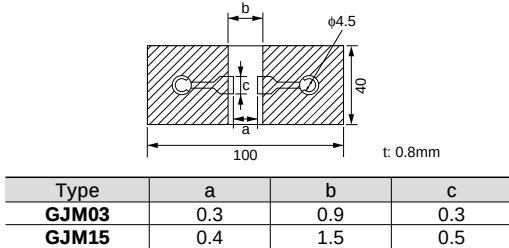
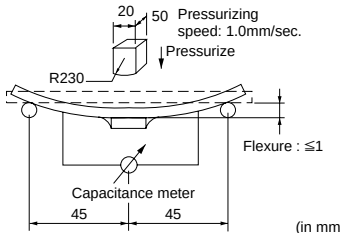
Monolithic Microchip  
GMA Series

For Bonding  
GMD Series

Product Information

## GJM Series Specifications and Test Methods

Continued from the preceding page.

| 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: $Q \geq 1000$<br>30pF and below: $Q \geq 400 + 20C$<br>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)                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |      |   |   |   |       |     |     |     |       |
|       |                              | <div><table><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></div> |                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Type | a | b | c | GJM03 | 0.3 | 0.9 | 0.3 | GJM15 |
| 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 $2 \pm 0.5$ seconds at $230 \pm 5^\circ\text{C}$ or Sn-3.0Ag-0.5Cu solder solution for $2 \pm 0.5$ 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 $10 \pm 0.5$ seconds. Let sit at room temperature for $24 \pm 2$ hours.                                                                                                                                                                                                                                                                                                |      |   |   |   |       |     |     |     |       |
|       |                              | Appearance                                                                                                                                                                                                                                                                                                                        | No marking defects                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |      |   |   |   |       |     |     |     |       |
|       |                              | Capacitance Change                                                                                                                                                                                                                                                                                                                | Within $\pm 2.5\%$ or $\pm 0.25\text{pF}$ (whichever is larger)                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |      |   |   |   |       |     |     |     |       |
|       |                              | Q                                                                                                                                                                                                                                                                                                                                 | 30pF and over: $Q \geq 1000$<br>30pF and below: $Q \geq 400 + 20C$<br>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.                                                                                                                                                                                                                               |                                                                                                                                                                  | <div><p>(in mm)</p></div>                                                                                                                                                                                                                                                                                                                                                                                                                             |      |   |   |   |       |     |     |     |       |
|       |                              | Appearance                                                                                                                                                                                                                                                                                                                        | No marking defects                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |      |   |   |   |       |     |     |     |       |
|       |                              | Capacitance Change                                                                                                                                                                                                                                                                                                                | Within $\pm 2.5\%$ or $\pm 0.25\text{pF}$ (whichever is larger)                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |      |   |   |   |       |     |     |     |       |
|       |                              | Q                                                                                                                                                                                                                                                                                                                                 | 30pF and over: $Q \geq 1000$<br>30pF and below: $Q \geq 400 + 20C$<br>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 $500 \pm 12$ hours. Remove and let sit for $24 \pm 2$ 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: $Q \geq 350$<br>10pF and over, 30pF and below: $Q \geq 275 + \frac{5}{2} C$<br>10pF and below: $Q \geq 200 + 10C$<br>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℃ and 90 to 95% humidity for 500±12 hours.<br>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<br>30pF and below: Q≥100+ $\frac{1}{C}$ C<br>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℃. Let sit for 24±2 hours (temperature compensating type) at room temperature, then measure.<br>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<br>10pF and over, 30pF and below: Q≥275+ $\frac{1}{C}$ C<br>10pF and below: Q≥200+10C<br>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<br>1pF<C≤5pF: 300mΩ below<br>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.<br>(ppm/℃) *1 | Capacitance Change from 25℃ Value (%) |       |      |       |      |       |
|------------|----------------------------|---------------------------------------|-------|------|-------|------|-------|
|            |                            | -55℃                                  |       | -30℃ |       | -10℃ |       |
|            |                            | 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℃.

(2)

| Char. | Nominal Values<br>(ppm/℃) *2 | Capacitance Change from 20℃ Value (%) |       |      |       |      |       |
|-------|------------------------------|---------------------------------------|-------|------|-------|------|-------|
|       |                              | -55℃                                  |       | -25℃ |       | -10℃ |       |
|       |                              | 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℃.