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Chip Multilayer Ceramic Capacitors for Automotive



2017



EU RoHS Compliant

- All the products in this catalog comply with EU RoHS.
- EU RoHS is "the European Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment."
- For more details, please refer to our web page, "Murata's Approach for EU RoHS" (<http://www.murata.com/en-eu/support/compliance/rohs>).

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Product specifications are as of May 2017.

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| Safety Standard Certified Metal Terminal Type Multilayer Ceramic Capacitors for Automotive | | |
| KCA Series | p57 | p19 |
| <hr/> | | |
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Please check the MURATA website (<http://www.murata.com/>) if you cannot find a part number in this catalog.

Explanation of Symbols in This Catalog



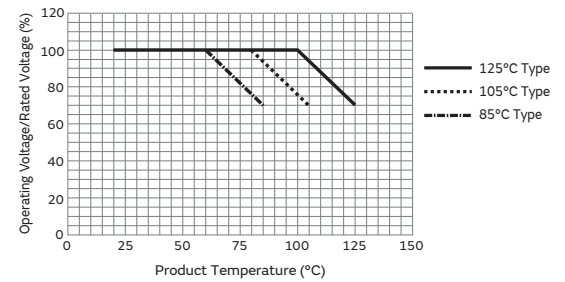
Links are provided to the latest information from the PDF version of the catalog, which is available on the web.

| | |
|--|---|
| General | For applications that do not require the particular reliability such as the general equipment |
| Info-tainment | Infotainment for Automotive The product for entertainment equipment like car navigations, car audios, and body control equipment like wipers, power windows. |
| Power-train | Powertrain/Safety for Automotive Product used for applications (running, turning, stopping and safety devices) which particularly concern human life, such as in devices for automobiles. |
| Medical Device | Medical-grade products for Implanted Medical Devices These products are intended for use in implanted medical devices such as cardiac pacemakers, cochlear implants, insulin pumps and gastric electrostimulators. They are suitable for use in non-critical circuits. *1 *1 Non-critical circuits This term refers to circuits in implanted medical devices that are not directly linked to life support, i.e. circuits that will not directly endanger the life of the patient should the functionality of the device be reduced or halted by failure of the circuit. |
| AEC-Q200 | AEC-Q200 compliant product |
| Safety standard | Safety Standard Certified Product Products that acquired safety standard certification IEC60384-14 and products based on the Electrical Appliance and Material Safety Law of Japan. |
| High Q | Low dissipation for high frequency By devising ceramic materials and electrode materials, low dissipation is achieved in frequency bands of VHF, UHF and microwave or beyond. |
| Low ESL | Low inductance This capacitor is designed so that the parasitic inductance component (ESL) that the capacitor has on the high frequency side becomes lower. |
| Fail safe | Fail safe product This capacitor is designed to prevent failures as much as possible by short mode. |
| Deflecting crack | Product resistant to deflection cracking This capacitor is designed to prevent failures as much as possible by short mode caused by cracking when there is board deflection. |
| Soldering crack | Product with solder cracking suppression This capacitor is configured with metal terminals and leads connected to the chip. The metal terminals and leads relieve the stress from expansion and contraction of the solder, to suppress solder cracking. |
| Anti-noise | Product suitable for acoustic noise reduction and low distortion This product suppresses acoustic noise, which occurs when a ceramic capacitor is used, by devising the materials and configuration. |
| Effective Cap | No DC bias characteristics Polymer capacitor is no capacitance change with DC bias due to aluminum oxidized film for dielectric. |
| EMI FIL® | Low-inductance product suitable for noise suppression. This product has extremely low ESL and is suitable for suppression of noise, including high frequencies. This product can also be used as a low-ESL, high-performance bypass capacitor. |
| Limited to conductive glue mounting | Limited to Conductive Glue Mounting Since silver palladium is used for the external electrodes, the capacitor can be mounted by conductive adhesive. |

Derating 1
 This product is suitable when a voltage continuously applied to a capacitor in an operating circuit, is used below (derated) the rated voltage of the capacitor. This model guarantees the test conditions in the endurance test, at a rated voltage x 100% at the maximum operating temperature. A reliability assurance level equivalent to a common product can be secured, by using this product within the voltage and temperature derated conditions recommended in the figure below.

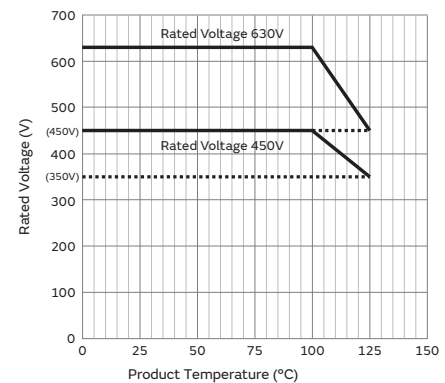
D1
 Derating 1

Recommended Conditions of the Derating Operating Voltage and Temperature



Derating 2
 When the product temperature exceeds 105°C, please use this product within the voltage and temperature derated conditions in the figure below.

D2
 Derating 2

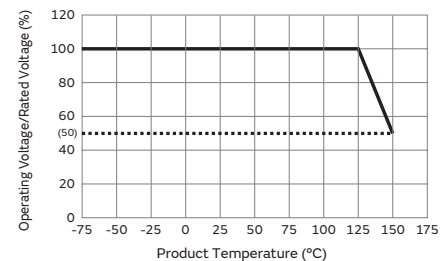


D3
 Derating 3

Derating 3
 Please apply the derating curve according to the operating temperature.
 Please refer to detailed specifications sheet for details.

D4
 Derating 4

Derating 4
 When the product temperature exceeds 125°C, please use this product within the voltage and temperature derated conditions in the figure below.



D5
 Derating 5

Derating 5
 Please apply the rated voltage derating over 150°C. Please refer to detailed specifications sheet for details.

Selection Guide for Capacitors

Infotainment for automotive

SMD

Solder mounting

Chip type

| | | | |
|--|------------|--|-----|
| | GRT | | P23 |
|--|------------|--|-----|

Powertrain/Safety for automotive

SMD

Solder mounting

Chip type

| | | | |
|--|------------|-----------------|--|
| | GCM | | P29 |
| | GC3 | Anti-noise | High effective capacitance & high ripple current P37 |
| | GCJ | Fail safe | Soft termination P39 |
| | GGM | Water Resistant | WEB |
| | GCQ | High Q | WEB |
| | GCD | Fail safe | MLSC design P45 |
| | GCE | Fail safe | Soft termination MLSC design P47 |
| | GGD | Fail safe | MLSC design WEB |
| | NFM | Low ESL | 3 terminals P49 |

Metal terminal type

| | | | | | | |
|--|------------|-----------------|------------------|------------------|--|-----|
| | KCM | Anti-noise | Deflecting crack | Soldering crack | P51 | |
| | KC3 | Anti-noise | Deflecting crack | Soldering crack | High effective capacitance & high ripple current P54 | |
| | KCA | Safety standard | Anti-noise | Deflecting crack | Soldering crack | P57 |

Limited to Conductive Glue Mounting

Chip type

| | | | | | |
|--|------------|------------------|-----------------|--|-----|
| | GCB | Deflecting crack | Soldering crack | Ni plating + Pd plating termination conductive glue mounting | WEB |
| | GCG | Deflecting crack | Soldering crack | AgPd termination conductive glue mounting | P60 |

Lead type

Solder mounting

| | | | | | |
|--|------------|-----------------|------------------|-----------------|----------------------------|
| | RCE | Anti-noise | Deflecting crack | Soldering crack | WEB |
| | RHE | Anti-noise | Deflecting crack | Soldering crack | 150°C operation leaded WEB |
| | RHS | Anti-noise | Deflecting crack | Soldering crack | 200°C operation leaded WEB |
| | DE6 | Safety standard | | | WEB |

Medical-grade products for implanted medical devices

SMD

Solder mounting

Chip type

| | | | |
|--|------------|--|-----|
| | GCH | | WEB |
|--|------------|--|-----|

For general

General SMD

Solder mounting

Chip type

| | | | |
|--|------------|------------------|--|
| | GRM | | WEB |
| | GRM | | For LCD backlight inverter circuit only WEB |
| | GR3 | Anti-noise | High effective capacitance & high ripple current WEB |
| | GRJ | Deflecting crack | Soft termination WEB |
| | GXM | Water Resistant | WEB |
| | GR4 | | For information devices only WEB |
| | GR7 | | For camera flash circuit only WEB |
| | GJM | High Q | WEB |
| | GQM | High Q | High power WEB |
| | GA2 | | Based on the Electrical Appliance and Material Safety Law of Japan WEB |
| | GA3 | Safety standard | WEB |
| | LLL | Low ESL | LW reversed WEB |
| | LLA | Low ESL | 8 terminals WEB |
| | LLM | Low ESL | 10 terminals WEB |
| | LLR | Low ESL | LW reversed controlled ESR WEB |
| | NFM | Low ESL | 3 terminals WEB |
| | GJ4 | Anti-noise | Low distortion WEB |
| | GJ8 | Anti-noise | Low acoustic noise WEB |

On interposer board

| | | | |
|--|------------|------------|-----|
| | ZRA | Anti-noise | WEB |
| | ZRB | Anti-noise | WEB |

Metal terminal type

| | | | | | |
|--|------------|------------|------------------|-----------------|--|
| | KRM | Anti-noise | Deflecting crack | Soldering crack | WEB |
| | KR3 | Anti-noise | Deflecting crack | Soldering crack | High effective capacitance & high ripple current WEB |

Resin molding SMD type

| | | | |
|--|------------|-----------------|-----|
| | DK1 | Safety standard | WEB |
|--|------------|-----------------|-----|

Wire bonding mounting

Bonding

Chip type

| | | | |
|--|------------|--|---------------|
| | GMA | | Microchip WEB |
| | GMD | | WEB |

Lead type

Solder mounting

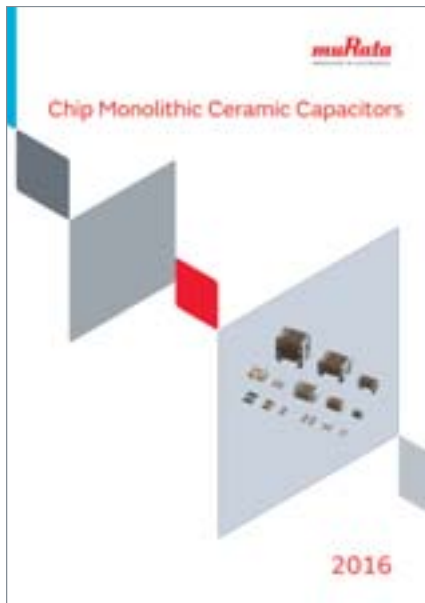
| | | | | | |
|--|------------|--------------------|------------------|-----------------|--|
| | RDE | Anti-noise | Deflecting crack | Soldering crack | WEB |
| | DEH | | | | High temperature low loss WEB |
| | DEA | | | | High temperature Class 1 WEB |
| | DEB | | | | Class 2 WEB |
| | DEC | | | | WEB |
| | DEF | | | | For LCD backlight inverter circuit only WEB |
| | DHR | Ultra-high-voltage | Deflecting crack | Soldering crack | WEB |
| | DEJ | | | | Based on the Electrical Appliance and Material Safety Law of Japan WEB |
| | DE1 | Safety standard | | | X1/Y1 Class certified product WEB |
| | DE2 | Safety standard | | | X1/Y2 Class certified product WEB |

Screw termination mounting

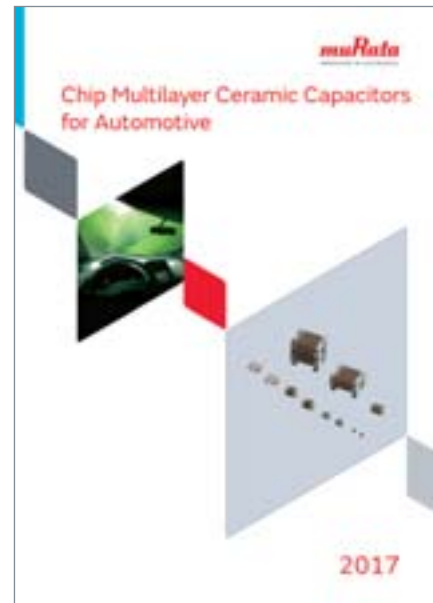
| | | | | | |
|--|------------|--------------------|--|--|---------------------------|
| | DHS | Ultra-high-voltage | | | WEB |
| | DHK | Ultra-high-voltage | | | High voltage AC rated WEB |

Catalog Information

Catalog relates to a multilayer ceramic capacitor is below.



Chip Monolithic Ceramic Capacitors
Cat No. C02E-20



Chip Multilayer Ceramic Capacitors for Automotive
Cat No. C03E-9



**Safety Certified Ceramic Capacitors/
High Voltage Ceramic Capacitors**
Cat No. C85E-5



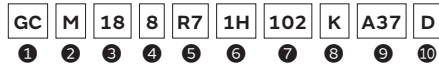
Radial Lead Type Monolithic Ceramic Capacitors
Cat No. C49E-23

● Part Numbering

Chip Multilayer Ceramic Capacitors for Automotive



(Part Number)



① Product ID

② Series

| Product ID | Code | Series |
|------------|------|--|
| GC | 3 | High effective capacitance & High allowable ripple current |
| | D | Specially designed product to reduce shorts |
| | E | Specially designed product to reduce shorts & resin electrode product |
| | G | Limited to conductive glue mounting |
| | J | Soft termination type |
| | M | For automotive |
| GR | T | Meet AEC-Q200 for infotainment |
| KC | 3 | Metal terminal type/High effective capacitance & High allowable ripple current |
| | A | Metal terminal type/ Safety standard certified product |
| | M | Metal terminal type |

③ Chip Dimension (L x W)

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

⑤ Temperature Characteristics

| Temperature Characteristic Codes | | | Temperature Characteristics | | | Operating Temperature Range | Capacitance Change Each Temperature (%) | | | | | |
|----------------------------------|-----------------|-----------------------|-----------------------------|---|------------------------|-----------------------------|---|-------|-------|-------|------|-------|
| Code | Public STD Code | Reference Temperature | Temperature Range | Capacitance Change or Temperature Coefficient | -55°C | | *4 | | -10°C | | | |
| | | | | | Max. | | Min. | Max. | Min. | Max. | Min. | |
| 5C | C0G | EIA | 25°C | 25 to 125°C | 0±30ppm/°C | -55 to 125°C | 0.58 | -0.24 | 0.4 | -0.17 | 0.25 | -0.11 |
| 5G | X8G | *2 | 25°C | 25 to 150°C | 0±30ppm/°C | -55 to 150°C | 0.58 | -0.24 | 0.4 | -0.17 | 0.25 | -0.11 |
| 7U | U2J | EIA | 25°C | 25 to 125°C *3 | -750±120ppm/°C | -55 to 125°C | 8.78 | 5.04 | 6.04 | 3.47 | 3.84 | 2.21 |
| 9E | ZLM | *2 | 20°C | -55 to -40°C | -4700+1000/-2500ppm/°C | -55 to 125°C | - | - | - | - | - | - |
| | | | | -40 to 20°C | -5350±750ppm/°C | | - | - | - | - | - | |
| | | | | 20 to 85°C | -4700±500ppm/°C | | - | - | - | - | - | |
| | | | | 85 to 125°C | -4700+2000/-1000ppm/°C | | - | - | - | - | - | |
| C7 | X7S | EIA | 25°C | -55 to 125°C | ±22% | -55 to 125°C | - | - | - | - | - | - |
| C8 | X6S | EIA | 25°C | -55 to 105°C | ±22% | -55 to 105°C | - | - | - | - | - | - |
| D7 | X7T | EIA | 25°C | -55 to 125°C | +22%, -33% | -55 to 125°C | - | - | - | - | - | - |
| L8 | X8L | *2 | 25°C | -55 to 150°C | +15%, -40% | -55 to 150°C | - | - | - | - | - | - |
| M8 | X8M | *2 | 25°C | -55 to 150°C | +15%, -50% | -55 to 150°C | - | - | - | - | - | - |
| R6 | X5R | EIA | 25°C | -55 to 85°C | ±15% | -55 to 85°C | - | - | - | - | - | - |
| R7 | X7R | EIA | 25°C | -55 to 125°C | ±15% | -55 to 125°C | - | - | - | - | - | - |
| R9 | X8R | EIA | 25°C | -55 to 150°C | ±15% | -55 to 150°C | - | - | - | - | - | - |

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

*2 Murata Temperature Characteristic Code.

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

*4 -25°C (Reference Temperature 20°C) / -30°C (Reference Temperature 25°C)

④ Height Dimension (T) (Except KC□)

| Code | Dimension (T) |
|------|----------------------------------|
| 3 | 0.3mm |
| 5 | 0.5mm |
| 6 | 0.6mm |
| 8 | 0.8mm |
| 9 | 0.85mm |
| A | 1.0mm |
| B | 1.25mm |
| C | 1.6mm |
| D | 2.0mm |
| E | 2.5mm |
| M | 1.15mm |
| Q | 1.5mm |
| X | Depends on individual standards. |

④ Height Dimension (T) (KC□ Only)

| Code | Dimension (T) |
|------|---------------|
| L | 2.8mm |
| Q | 3.7mm |
| T | 4.8mm |
| W | 6.4mm |

Continued on the following page. ↗

(Part Number)

| | | | | | | | | | |
|----|---|----|---|----|----|-----|---|-----|----|
| GC | M | 18 | 8 | R7 | 1H | 102 | K | A37 | D |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

Continued from the preceding page. ↘

⑥ Rated Voltage

| Code | | Rated Voltage |
|------------------|-------------------------|--|
| Standard Product | Voltage Derated Product | |
| 0E | - | DC2.5V |
| 0G | - | DC4V |
| 0J | EC | DC6.3V |
| 1A | ED | DC10V |
| 1C | EE | DC16V |
| 1E | EF | DC25V |
| YA | EG | DC35V |
| 1H | EH | DC50V |
| 1J | - | DC63V |
| 1K | - | DC80V |
| 2A | EL | DC100V |
| 2E | - | DC250V |
| 2W | LP | DC450V |
| 2J | LQ | DC630V |
| 3A | - | DC1kV |
| MF | - | X1/Y2: AC250V (Safety Standard Certified Type MF) |

⑦ Capacitance

Expressed by three-digit alphanumerics. The unit is pico-farad (pF). The first and second figures are significant digits, and the third figure expresses the number of zeros that follow the two numbers.

If there is a decimal point, it is expressed by the capital letter "R."
 In this case, all figures are significant digits.

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

Ex.)

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

⑧ Capacitance Tolerance

| Code | Capacitance Tolerance |
|------|-------------------------|
| C | ±0.25pF |
| D | ±0.5pF (Less than 10pF) |
| | ±0.5% (10pF and over) |
| J | ±5% |
| K | ±10% |
| M | ±20% |

⑨ Individual Specification Code

Expressed by three figures.

⑩ Package

| Code | Package |
|------|------------------------|
| L | ø180mm Embossed Taping |
| D/W | ø180mm Paper Taping |
| K | ø330mm Embossed Taping |
| J | ø330mm Paper Taping |

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

3 Terminal Low ESL Multilayer Ceramic Capacitors



(Part Number)

| | | | | | | | | |
|----|---|----|----|-----|---|----|---|---|
| NF | M | 3D | CC | 102 | R | 1H | 3 | L |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

1 Product ID 2 Series

| Product ID | Series |
|------------|-------------------------|
| NFM | 3 Terminal Low ESL Type |

3 Dimensions (LxW)

| Code | Dimensions (LxW) | EIA |
|------|------------------|------|
| 21 | 2.0x1.25mm | 0805 |
| 31 | 3.2x1.6mm | 1206 |

4 Features

| Code | Features | |
|------|----------------------------------|--------------------------------------|
| HC | Powertrain/Safety for Automotive | For Signal Lines / For Large Current |
| HK | | For Very Large Current |

5 Capacitance

Expressed by three figures. The unit is in pico-farad (pF). The first and second figures are significant digits, and the third figure expresses the number of zeros that follow the two figures.

6 Characteristics

| Code | Capacitance Temperature Characteristics |
|------|---|
| R | ±15%, +15/-18% |

7 Rated Voltage

| Code | Rated Voltage |
|------|---------------|
| 1A | 10V |
| 1C | 16V |
| 1H | 50V |
| 2A | 100V |

8 Electrode

| Code | Electrode |
|------|------------|
| 3 | Sn Plating |

9 Packaging

| Code | Packaging |
|------|-------------------------------|
| L | Embossed Taping (ø180mm Reel) |
| D | Paper Taping (ø180mm Reel) |

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

Capacitance Table

How to read the Capacitance Table

| L×W (mm) | 1.0×0.5 | | | 1.6× | |
|---------------------|---------|-----|-----|------|-----|
| T max. (mm) | 0.55 | | | 0.9 | |
| Rated Voltage (Vdc) | 100 | 50 | 25 | 100 | 50 |
| Cap. / TC Code | COG | COG | COG | COG | COG |
| 1.0pF | p24 | p24 | | p24 | p24 |
| 2.0pF | p24 | p24 | | p24 | p24 |
| 3.0pF | p24 | p24 | | p24 | p24 |
| 4.0pF | p24 | p24 | | p24 | p24 |
| 5.0pF | p24 | p24 | | p24 | p24 |

→ The values can be narrowed down in the order of size, rated voltage, and temperature characteristics.

→ Refers to the page of the part number list. Check the part number list for the applicable product number.

Temperature Characteristics Table

The Table is colored by temperature characteristic codes. Refer to the following Table for the meaning of each code.

| Temperature Characteristic Codes | | Temperature Characteristics | | | Operating Temperature Range | Capacitance Change Each Temperature (%) | | | | | |
|----------------------------------|-----|-----------------------------|-------------------|---|-----------------------------|---|-------|------|-------|-------|-------|
| | | Reference Temperature | Temperature Range | Capacitance Change or Temperature Coefficient | | -55°C | | *3 | | -10°C | |
| Public STD Code | | | | | | Max. | Min. | Max. | Min. | Max. | Min. |
| COG | EIA | 25°C | 25 to 125°C | 0±30ppm/°C | -55 to 125°C | 0.58 | -0.24 | 0.4 | -0.17 | 0.25 | -0.11 |
| X8G | *1 | 25°C | 25 to 150°C | 0±30ppm/°C | -55 to 150°C | 0.58 | -0.24 | 0.4 | -0.17 | 0.25 | -0.11 |
| U2J | EIA | 25°C | 25 to 125°C *2 | -750±120ppm/°C | -55 to 125°C | 8.78 | 5.04 | 6.04 | 3.47 | 3.84 | 2.21 |
| ZLM | *1 | 20°C | -55 to -40°C | -4700+1000/-2500ppm/°C | -55 to 125°C | - | - | - | - | - | - |
| | | | -40 to 20°C | -5350±750ppm/°C | | - | - | - | - | - | - |
| | | | 20 to 85°C | -4700±500ppm/°C | | - | - | - | - | - | - |
| | | | 85 to 125°C | -4700+2000/-1000ppm/°C | | - | - | - | - | - | - |
| X7S | EIA | 25°C | -55 to 125°C | ±22% | -55 to 125°C | - | - | - | - | - | - |
| X6S | EIA | 25°C | -55 to 105°C | ±22% | -55 to 105°C | - | - | - | - | - | - |
| X7T | EIA | 25°C | -55 to 125°C | +22%, -33% | -55 to 125°C | - | - | - | - | - | - |
| X8L | *1 | 25°C | -55 to 150°C | +15%, -40% | -55 to 150°C | - | - | - | - | - | - |
| X8M | *1 | 25°C | -55 to 150°C | +15%, -50% | -55 to 150°C | - | - | - | - | - | - |
| X5R | EIA | 25°C | -55 to 85°C | ±15% | -55 to 85°C | - | - | - | - | - | - |
| X7R | EIA | 25°C | -55 to 125°C | ±15% | -55 to 125°C | - | - | - | - | - | - |
| X8R | EIA | 25°C | -55 to 150°C | ±15% | -55 to 150°C | - | - | - | - | - | - |

*1 Murata Temperature Characteristic Code.

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

*3 -25°C (Reference Temperature 20°C) / -30°C (Reference Temperature 25°C)

Capacitance Table

p00 Each number in the Part Number List refers to the page number printed at the bottom of the page.

GRT Series Temperature Compensating Type

p00 ← Part Number List EIA: COG

| L×W (mm) | 1.0×0.5 | | | 1.6×0.8 | | | 2.0×1.25 | 3.2×1.6 | | |
|---------------------|---------|-----|-----|---------|-----|-----|----------|---------|-----|-----|
| T max. (mm) | 0.55 | | | 0.9 | | | 1.35 | 1.8 | | |
| Rated Voltage (Vdc) | 100 | 50 | 25 | 100 | 50 | 25 | 50 | 50 | 25 | 16 |
| Cap. / TC Code | COG | COG | COG | COG | COG | COG | COG | COG | COG | COG |
| 1.0pF | p24 | p24 | | p24 | p25 | | | | | |
| 2.0pF | p24 | p24 | | p24 | p25 | | | | | |
| 3.0pF | p24 | p24 | | p24 | p25 | | | | | |
| 4.0pF | p24 | p24 | | p24 | p25 | | | | | |
| 5.0pF | p24 | p24 | | p24 | p25 | | | | | |
| 6.0pF | p24 | p24 | | p24 | p25 | | | | | |
| 7.0pF | p24 | p24 | | p24 | p25 | | | | | |
| 8.0pF | p24 | p24 | | p24 | p25 | | | | | |
| 9.0pF | p24 | p24 | | p24 | p25 | | | | | |
| 10pF | p24 | p24 | p24 | p24 | p25 | | | | | |
| 12pF | p24 | p24 | p24 | p24 | p25 | | | | | |
| 15pF | p24 | p24 | p24 | p24 | p25 | | | | | |
| 18pF | p24 | p24 | p24 | p24 | p25 | | | | | |
| 22pF | p24 | p24 | p24 | p24 | p25 | | | | | |
| 27pF | p24 | p24 | p24 | p24 | p25 | | | | | |
| 33pF | p24 | p24 | p24 | p24 | p25 | | | | | |
| 39pF | p24 | p24 | p24 | p24 | p25 | | | | | |
| 47pF | p24 | p24 | p24 | p24 | p25 | | | | | |
| 56pF | p24 | p24 | p24 | p24 | p25 | | | | | |
| 68pF | p24 | p24 | p24 | p24 | p25 | | | | | |
| 82pF | p24 | p24 | p24 | p25 | p25 | | | | | |
| 100pF | p24 | p24 | p24 | p25 | p25 | | | | | |
| 120pF | | p24 | p24 | p25 | p25 | | | | | |
| 150pF | | p24 | p24 | p25 | p25 | | | | | |
| 180pF | | p24 | p24 | p25 | p25 | | | | | |
| 220pF | | p24 | p24 | p25 | p25 | | | | | |
| 270pF | | p24 | p24 | p25 | p25 | | | | | |
| 330pF | | p24 | p24 | p25 | p25 | | | | | |
| 390pF | | p24 | p24 | p25 | p25 | | | | | |
| 470pF | | p24 | p24 | p25 | p25 | | | | | |
| 560pF | | p24 | p24 | p25 | p25 | p25 | | | | |
| 680pF | | p24 | p24 | p25 | p25 | p25 | | | | |
| 820pF | | p24 | p24 | p25 | p25 | p25 | | | | |
| 1000pF | | p24 | p24 | p25 | p25 | p25 | | | | |
| 1200pF | | | | p25 | p25 | p25 | | | | |
| 1500pF | | | | p25 | p25 | p25 | | | | |
| 1800pF | | | | | p25 | | | | | |
| 2200pF | | | | | p25 | | | | | |
| 2700pF | | | | | p25 | | | | | |
| 3300pF | | | | | p25 | | | | | |
| 3900pF | | | | | p25 | | | | | |
| 4700pF | | | | | p25 | p25 | | | | |
| 5600pF | | | | | p25 | p25 | | | | |
| 6800pF | | | | | p25 | p25 | | | | |
| 8200pF | | | | | p25 | p25 | | | | |
| 10000pF | | | | | p25 | p25 | | | | |
| 18000pF | | | | | | | p25 | | | |
| 22000pF | | | | | | | p25 | | | |
| 56000pF | | | | | | | | p25 | | |
| 68000pF | | | | | | | | p25 | | |
| 82000pF | | | | | | | | p25 | | |
| 0.10μF | | | | | | | | p25 | p25 | |
| 0.12μF | | | | | | | | | p25 | p25 |

Capacitance Table

p00 Each number in the Part Number List refers to the page number printed at the bottom of the page.

GRT Series High Dielectric Constant Type

p00 ← Part Number List EIA: X6S X7S X5R X7R

| L×W (mm) | 0.6×0.3 | | | | | | | | | | | | 1.0×0.5 | | | | | | | | | | | | | | |
|---------------------|---------|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 0.33 | | | | | | 0.35 | | | | | | 0.55 | | | | | | | | | | | | | | |
| T max. (mm) | 0.33 | | | | | | 0.35 | | | | | | 0.55 | | | | | | | | | | | | | | |
| Rated Voltage (Vdc) | 35 | | 25 | | 16 | | 10 | | 6.3 | | 4 | | 6.3 | | 4 | | 50 | | 35 | | 25 | | 16 | | 10 | | |
| Cap. / TC Code | X5R | X7R | X6S | X5R | X6S | X5R | X7R | X6S | X5R | X7R | X6S | X5R | X6S | X5R | X6S | X5R | X7R | X6S | X5R | X7R | X6S | X5R | X7R | X6S | X5R | X7R | X6S |
| 100pF | | | | p26 | | | | | | | | | | | | | | | | | | | | | | | |
| 220pF | | | | p26 | | | | | | | | | | | | | | p26 | | | | | | | | | |
| 470pF | | p26 | p26 | p26 | | | | | | | | | | | | | | p26 | | | | | | | | | |
| 1000pF | | p26 | p26 | p26 | | | | | | | | | | | | | | p26 | | | | | | | | | |
| 2200pF | | | | | | | | p26 | p26 | p26 | | | | | | | | p26 | | | | | | | | | |
| 4700pF | | | | p26 | | | | p26 | p26 | p26 | | | | | | | | p26 | | | | | | | | | |
| 10000pF | | | | p26 | | p26 | p26 | p26 | p26 | p26 | | | | | | | | p26 | | p26 | | | | p26 | | | |
| 22000pF | | | | | | p26 | | p26 | | p26 | p26 | | | | | | | p26 | | p26 | | | | p26 | | | |
| 47000pF | | | | | | p26 | | p26 | | p26 | p26 | | | | | | | p26 | | p26 | | | | p26 | | | |
| 68000pF | | | | | | | | | | p26 | p26 | p26 | | | | | | | | | | | | | | | |
| 0.10μF | p26 | | p26 | p26 | p26 | p26 | | p26 | p26 | p26 | p26 | | | | | | p26 | | p26 | | | | p26 | | | | |
| 0.22μF | | | | | | | | p26 | | p26 | p26 | p26 | | | | | | p26 | p26 | | p26 | p26 | p26 | | p26 | p26 | |
| 0.47μF | | | | | | | | | | | p26 | | | | | | | | p26 | | | p26 | p26 | p26 | | | |
| 1.0μF | | | | | | | | | | | | | p26 | p26 | | | | | | p26 | | | p26 | | | p26 | |
| 2.2μF | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.7μF | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10μF | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22μF | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 33μF | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 47μF | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 100μF | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Continued to the following table. ↗

| L×W (mm) | 1.0×0.5 | | | | | | | | | | | | | | | 1.6×0.8 | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|--|
| | 0.55 | | | | | 0.6 | | | | | 0.65 | | | | | 0.7 | | | | | 0.9 | | | | | | | | | | | | | | | | | |
| T max. (mm) | 0.55 | | | | | 0.6 | | | | | 0.65 | | | | | 0.7 | | | | | 0.9 | | | | | | | | | | | | | | | | | |
| Rated Voltage (Vdc) | 10 | | 6.3 | | 4 | | 35 | | 25 | | 16 | | 10 | | 6.3 | | 4 | | 10 | | 6.3 | | 25 | | 16 | | 10 | | 2.5 | | 50 | | 35 | | 25 | | 16 | |
| Cap. / TC Code | X5R | X7R | X6S | X5R | X7R | X5R | X6S | X6S | X7S | X5R | X5R | X5R | X6S | X5R | X6S | X5R | X6S | X5R | X7S | X6S | X6S | X5R | X6S | X5R | X7R | X6S | X5R | X7R | X6S | X5R | X7R | X6S | X5R | X7R | | | | |
| 100pF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 220pF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 470pF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1000pF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2200pF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4700pF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10000pF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22000pF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 47000pF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 68000pF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.10μF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.22μF | p26 | | p26 | p26 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.47μF | p26 | | p26 | p26 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.0μF | p26 | p26 | p26 | p26 | p26 | p26 | p26 | p26 | p26 | | | | | | | | | | | | | | | | p27 | p27 | p27 | p27 | p27 | p27 | p27 | p27 | p27 | p27 | p27 | p27 | | |
| 2.2μF | p26 | | p26 | p26 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.7μF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10μF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22μF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 33μF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 47μF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 100μF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Continued on the following page. ↗

Capacitance Table

p00 Each number in the Part Number List refers to the page number printed at the bottom of the page.

(→ GRT Series High Dielectric Constant Type)

p00 ← Part Number List EIA: X6S X7S X5R X7R

| L×W (mm) | 3.2×1.6 | | | | | | | | | | | 3.2×2.5 | | | | | | | | | |
|---------------------|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 1.8 | | | | | | | | | | | 2.2 | | | 2.7 | | | | | | |
| T max. (mm) | 1.8 | | | | | | | | | | | 2.2 | | | 2.7 | | | | | | |
| Rated Voltage (Vdc) | 25 | | | 16 | | 10 | | 6.3 | | 4 | | 25 | | 6.3 | 50 | | 16 | 10 | | 6.3 | |
| Cap. / TC Code | X7R | X6S | X5R | X6S | X5R | X6S | X5R | X7R | X6S | X5R | X6S | X6S | X5R | X5R | X7R | X6S | X6S | X6S | X7R | X6S | X5R |
| 100pF | | | | | | | | | | | | | | | | | | | | | |
| 220pF | | | | | | | | | | | | | | | | | | | | | |
| 470pF | | | | | | | | | | | | | | | | | | | | | |
| 1000pF | | | | | | | | | | | | | | | | | | | | | |
| 2200pF | | | | | | | | | | | | | | | | | | | | | |
| 4700pF | | | | | | | | | | | | | | | | | | | | | |
| 10000pF | | | | | | | | | | | | | | | | | | | | | |
| 22000pF | | | | | | | | | | | | | | | | | | | | | |
| 47000pF | | | | | | | | | | | | | | | | | | | | | |
| 68000pF | | | | | | | | | | | | | | | | | | | | | |
| 0.10μF | | | | | | | | | | | | | | | | | | | | | |
| 0.22μF | | | | | | | | | | | | | | | | | | | | | |
| 0.47μF | | | | | | | | | | | | | | | | | | | | | |
| 1.0μF | | | | | | | | | | | | | | | | | | | | | |
| 2.2μF | | | | | | | | | | | | | | | | | | | | | |
| 4.7μF | | | | | | | | | | | | | | | | | | | | | |
| 10μF | p27 | p27 | p27 | | | | | | | | | p28 | p28 | | | | | | | | |
| 22μF | | | p28 | p28 | p28 | p28 | p28 | p28 | p28 | p28 | | | | | | | | | | | |
| 33μF | | | | | | | | | | | | | | p28 | | | | | | | |
| 47μF | | | | | | | p28 | | p28 | p28 | p28 | | | | | | | p28 | p28 | p28 | p28 |
| 100μF | | | | | | | | | | | | | | | | | | | | | p28 |

Capacitance Table

p00 Each number in the Part Number List refers to the page number printed at the bottom of the page.

GCM Series Temperature Compensating Type

p00 ← Part Number List EIA: C0G U2J Murata Temperature Characteristic: X8G ZLM

| L×W (mm) | 1.0×0.5 | | 1.6×0.8 | | 2.0×1.25 | | | | | | | | | | 3.2×1.6 | | | | | | | | | | | |
|---------------------|-------------|-----|---------|-----|----------|-----|------|-----|-----|-----|-----|-----|-----|-----|---------|-----|------|-----|-----|-----|-----|------|-----|-----|-----|--|
| | T max. (mm) | | 0.9 | | 0.7 | | 0.95 | | | | 1.0 | | 1.4 | | 1.45 | | 0.95 | | 1.0 | | | | | | | |
| Rated Voltage (Vdc) | 50 | | 100 | | 50 | | 100 | 50 | 100 | 80 | 63 | 50 | 630 | 250 | 80 | 63 | 50 | 630 | 250 | 100 | 80 | 1000 | 630 | | | |
| Cap. / TC Code | C0G | X8G | C0G | U2J | C0G | U2J | C0G | C0G | ZLM | C0G | C0G | C0G | C0G | C0G | U2J | C0G | C0G | C0G | C0G | U2J | C0G | C0G | C0G | U2J | C0G | |
| 1.0pF | p30 | p30 | p30 | | p31 | | | | | | | | | | | | | | | | | | | | | |
| 2.0pF | p30 | p30 | p30 | | p31 | | | | | | | | | | | | | | | | | | | | | |
| 3.0pF | p30 | p30 | p30 | | p31 | | | | | | | | | | | | | | | | | | | | | |
| 4.0pF | p30 | p30 | p30 | | p31 | | | | | | | | | | | | | | | | | | | | | |
| 5.0pF | p30 | p30 | p30 | | p31 | | | | | | | | | | | | | | | | | | | | | |
| 6.0pF | p30 | | p30 | | p31 | | | | | | | | | | | | | | | | | | | | | |
| 7.0pF | p30 | | p30 | | p31 | | | | | | | | | | | | | | | | | | | | | |
| 8.0pF | p30 | | p30 | | p31 | | | | | | | | | | | | | | | | | | | | | |
| 9.0pF | p30 | | p30 | | p31 | | | | | | | | | | | | | | | | | | | | | |
| 10pF | p30 | | p30 | | p31 | | | | | | | | p32 | p32 | | | | | | | | | p32 | p33 | p33 | |
| 12pF | p30 | p30 | p30 | | p31 | | | | | | | | p32 | p32 | | | | | | | | | p32 | p33 | p33 | |
| 15pF | p30 | p30 | p30 | | p31 | | | | | | | | p32 | p32 | | | | | | | | | p32 | p33 | p33 | |
| 18pF | p30 | p30 | p30 | | p31 | | | | | | | | p32 | p32 | | | | | | | | | p32 | p33 | p33 | |
| 22pF | p30 | p30 | p30 | | p31 | | | | | | | | p32 | p32 | | | | | | | | | p32 | p33 | p33 | |
| 27pF | p30 | p30 | p30 | | p31 | | | | | | | | p32 | p32 | | | | | | | | | p32 | p33 | p33 | |
| 33pF | p30 | p30 | p30 | | p31 | | | | | | | | p32 | p32 | | | | | | | | | p32 | p33 | p33 | |
| 39pF | p30 | p30 | p30 | | p31 | | | | | | | | p32 | p32 | | | | | | | | | p33 | p33 | p33 | |
| 47pF | p30 | p30 | p30 | | p31 | | | | | | | | p32 | p32 | | | | | | | | | p33 | p33 | p33 | |
| 56pF | p30 | p30 | p30 | | p31 | | | | | | | | p32 | p32 | | | | | | | | | p33 | p33 | p33 | |
| 68pF | p30 | p30 | p30 | | p31 | | | | | | | | p32 | p32 | | | | | | | | | p33 | p33 | p33 | |
| 82pF | p30 | p30 | p30 | | p31 | | | | | | | | p32 | p32 | | | | | | | | | p33 | p33 | p33 | |
| 100pF | p30 | p30 | p30 | | p31 | | p31 | | | | | | p32 | p32 | p32 | | | | | | | | p33 | p33 | p33 | |
| 120pF | p30 | p30 | p30 | | p31 | | p31 | | | | | | p32 | p32 | p32 | | | | | | | | p33 | p33 | p33 | |
| 150pF | p30 | p30 | p30 | | p31 | | p31 | | | | | | p32 | p32 | p32 | | | | | | | | p33 | p33 | p33 | |
| 180pF | p30 | p30 | p30 | | p31 | | p31 | | | | | | p32 | p32 | p32 | | | | | | | | p33 | p33 | p33 | |
| 220pF | p30 | p30 | p30 | | p31 | | p31 | | | | | | p32 | p32 | p32 | | | | | | | | p33 | p33 | p33 | |
| 270pF | p30 | p30 | p30 | | p31 | | p31 | | | | | | p32 | p32 | p32 | | | | | | | | p33 | p33 | p33 | |
| 330pF | p30 | p30 | p30 | | p31 | | p31 | | | | | | p32 | p32 | p32 | | | | | | | | p33 | p33 | p33 | |
| 390pF | p30 | p30 | p30 | | p31 | | p31 | | | | | | p32 | p32 | p32 | | | | | | | | p33 | | p33 | |
| 470pF | p30 | p30 | p30 | | p31 | | p31 | | | | | | p32 | p32 | p32 | | | | | | | | p33 | | p33 | |
| 560pF | p30 | p30 | p30 | | p31 | | p31 | | | | | | p32 | p32 | p32 | | | | | | | | | | p33 | |
| 680pF | p30 | p30 | p30 | | p31 | | p31 | | | | | | | p32 | p32 | | | p32 | | | | | | | p33 | |
| 820pF | p30 | p30 | p30 | | p31 | | p31 | | | | | | | p32 | p32 | | | p32 | | | | | | | p33 | |
| 1000pF | p30 | p30 | p30 | p30 | p31 | p31 | p31 | | p31 | | | | | p32 | p32 | | | p32 | | | | | | | p33 | |
| 1100pF | | | | | | | | | | p31 | | | | | | | | | | | | | | | | |
| 1200pF | | | p30 | p30 | p31 | p31 | p31 | | | | | | | p32 | p32 | | | p32 | | | | | | | p33 | |
| 1300pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1500pF | | | p30 | p31 | p31 | p31 | p31 | | | | | | | p32 | p32 | | | | | | | | | | p33 | |
| 1800pF | | | | p31 | p31 | p31 | p31 | | | | | | | p32 | p32 | | | | | | | | | | p33 | |
| 2200pF | | | | p31 | p31 | p31 | p31 | | | | | | | p32 | p32 | | | | | | | | | | | |
| 2700pF | | | | p31 | p31 | p31 | p31 | | | | | | | p32 | | | | | | | | | | | | |
| 3300pF | | | | p31 | p31 | p31 | p31 | | | | | | | | | | | | p32 | p32 | | | | | | |
| 3900pF | | | | p31 | p31 | p31 | | | | | | | | | | | | | p32 | p32 | p32 | | | | | |
| 4700pF | | | | p31 | | p31 | | p31 | | | | | | | | | | | p32 | p32 | p32 | | | | | |
| 5600pF | | | | p31 | | p31 | | | | | | | p31 | | | | | | p32 | p32 | | | | | | |
| 6800pF | | | | p31 | | p31 | | | | | | | p31 | | | | | | | p32 | | | | | | |
| 8200pF | | | | p31 | | p31 | | | | | | | p31 | | | | | | | | p32 | | | | | |
| 10000pF | | | | p31 | | p31 | | | | | | | p31 | | | | | | | | | p32 | | | | |
| 12000pF | | | | | | | | | | | | | p31 | | | | | | | | | | | | | |
| 15000pF | | | | | | | | | | | | | p31 | p31 | p31 | | | | | | | | | | | |
| 18000pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20000pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22000pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 27000pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 33000pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 39000pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 47000pF | | | | | | | | | | | | | | | | | | | | | | | | | | |

Continued on the following page. ↗

Capacitance Table

p00 Each number in the Part Number List refers to the page number printed at the bottom of the page.

(→ GCM Series Temperature Compensating Type)

p00 ← Part Number List EIA: C0G U2J Murata Temperature Characteristic: X8G ZLM

| L×W (mm) | 3.2×1.6 | | | | | | | | | | | | 3.2×2.5 | | | | | | 4.5×3.2 | | | |
|---------------------|---------|-----|------|-----|-----|------|------|-----|-----|-----|-----|------|---------|------|-----|------|-----|------|---------|------|-----|-----|
| | 1.0 | | 1.25 | | | | 1.8 | | | | | | 1.0 | 1.25 | | 1.5 | | 2.0 | | 1.5 | | 2.0 |
| T max. (mm) | 630 | 250 | 1000 | | 630 | 250 | 1000 | | 630 | 250 | 630 | 1000 | 630 | 1000 | 630 | 1000 | 630 | 1000 | 630 | 1000 | 630 | |
| Rated Voltage (Vdc) | 630 | 250 | 1000 | 630 | 250 | 1000 | 630 | 250 | 630 | 250 | 630 | 1000 | 630 | 1000 | 630 | 1000 | 630 | 1000 | 630 | 1000 | 630 | |
| Cap. / TC Code | U2J | C0G | U2J | C0G | U2J | C0G | U2J | C0G | U2J | C0G | U2J | C0G | U2J | C0G | U2J | C0G | U2J | C0G | U2J | C0G | U2J | |
| 1.0pF | | | | | | | | | | | | | | | | | | | | | | |
| 2.0pF | | | | | | | | | | | | | | | | | | | | | | |
| 3.0pF | | | | | | | | | | | | | | | | | | | | | | |
| 4.0pF | | | | | | | | | | | | | | | | | | | | | | |
| 5.0pF | | | | | | | | | | | | | | | | | | | | | | |
| 6.0pF | | | | | | | | | | | | | | | | | | | | | | |
| 7.0pF | | | | | | | | | | | | | | | | | | | | | | |
| 8.0pF | | | | | | | | | | | | | | | | | | | | | | |
| 9.0pF | | | | | | | | | | | | | | | | | | | | | | |
| 10pF | p33 | p33 | | | | | | | | | | | | | | | | | | | | |
| 12pF | p33 | p33 | | | | | | | | | | | | | | | | | | | | |
| 15pF | p33 | p33 | | | | | | | | | | | | | | | | | | | | |
| 18pF | p33 | p33 | | | | | | | | | | | | | | | | | | | | |
| 22pF | p33 | p33 | | | | | | | | | | | | | | | | | | | | |
| 27pF | p33 | p33 | | | | | | | | | | | | | | | | | | | | |
| 33pF | p33 | p33 | | | | | | | | | | | | | | | | | | | | |
| 39pF | p33 | p33 | | | | | | | | | | | | | | | | | | | | |
| 47pF | p33 | p33 | | | | | | | | | | | | | | | | | | | | |
| 56pF | p33 | p33 | | | | | | | | | | | | | | | | | | | | |
| 68pF | p33 | p33 | | | | | | | | | | | | | | | | | | | | |
| 82pF | p33 | p33 | | | | | | | | | | | | | | | | | | | | |
| 100pF | p33 | p33 | | | | | | | | | | | | | | | | | | | | |
| 120pF | p33 | p33 | | | | | | | | | | | | | | | | | | | | |
| 150pF | p33 | p33 | | | | | | | | | | | | | | | | | | | | |
| 180pF | p33 | p33 | | | | | | | | | | | | | | | | | | | | |
| 220pF | p33 | p33 | | | | | | | | | | | | | | | | | | | | |
| 270pF | p33 | p33 | | | | | | | | | | | | | | | | | | | | |
| 330pF | p33 | p34 | | | | | | | | | | | | | | | | | | | | |
| 390pF | p33 | p34 | | | p34 | | | | | | | | | | | | | | | | | |
| 470pF | p33 | p34 | | | p34 | | | | | | | | | | | | | | | | | |
| 560pF | p33 | p34 | | p34 | p34 | | | | | | | | | | | | | | | | | |
| 680pF | p33 | p34 | | p34 | p34 | | | | | | | | | | | | | | | | | |
| 820pF | p33 | p34 | | | | | | p34 | p34 | | | | | | | | | | | | | |
| 1000pF | p33 | p34 | | | | | | p34 | p34 | | | | | | | | | | | | | |
| 1100pF | | | | | | | | | | | | | | | | | | | | | | |
| 1200pF | p33 | p34 | | | | | | | | | | p34 | p34 | | | | | | | | | |
| 1300pF | | | | | | | | | | | | | | | | | | | | | | |
| 1500pF | p33 | p34 | | | | | | | | | | p34 | | p34 | | | | | | | | |
| 1800pF | p33 | p34 | | | | | | | | | | p34 | | | | p34 | | | | | | |
| 2200pF | p33 | p34 | | | | p34 | | | | | | p34 | | | | p34 | | | | | | |
| 2700pF | | p34 | p34 | | | p34 | p34 | | | | | | | | | | | | p34 | | | |
| 3300pF | | p34 | p34 | | | | p34 | | | | p34 | | | | | | | | | p34 | | |
| 3900pF | | p34 | p34 | | | | | | | | | | | | | | | | | | p34 | |
| 4700pF | | p34 | p34 | | | | | | | | | | | | | | | | | | p34 | |
| 5600pF | | p34 | p34 | | | | | | | | | | | | | | | | | | | |
| 6800pF | | p34 | | | | | | | | | | | | | | | | | | | | |
| 8200pF | | | | | | | | | p34 | p34 | | | | | | | | | | p34 | | |
| 10000pF | | | | | | | | | p34 | p34 | | | | | | | | | | p34 | | |
| 12000pF | | | | | | | | | p34 | | | | | | | | | | | | | |
| 15000pF | | | | | | | | | | | | | | | | | | | | | | |
| 18000pF | | | | | | | | | | | | | | | | | | | | | | p34 |
| 20000pF | | | | | | | | | | | | | | | | | | | | | | p34 |
| 22000pF | | | | | | | | | | | | | | | | | | | | | | p34 |
| 27000pF | | | | | | | | | | | | | | | | | | | | | | |
| 33000pF | | | | | | | | | | | | | | | | | | | | | | |
| 39000pF | | | | | | | | | | | | | | | | | | | | | | |
| 47000pF | | | | | | | | | | | | | | | | | | | | | | |

Continued on the following page. ↗

Capacitance Table

p00 Each number in the Part Number List refers to the page number printed at the bottom of the page.

(→ GCM Series Temperature Compensating Type)

p00 ← Part Number List EIA: **C0G** **U2J** Murata Temperature Characteristic: **X8G** **ZLM**

| L×W (mm) | 5.7×5.0 | | | |
|---------------------|---------|-----|------|-----|
| | 1.5 | | 2.0 | |
| T max. (mm) | 1.5 | | 2.0 | |
| Rated Voltage (Vdc) | 1000 | 630 | 1000 | 630 |
| Cap. / TC Code | U2J | U2J | U2J | U2J |
| 1.0pF | | | | |
| 2.0pF | | | | |
| 3.0pF | | | | |
| 4.0pF | | | | |
| 5.0pF | | | | |
| 6.0pF | | | | |
| 7.0pF | | | | |
| 8.0pF | | | | |
| 9.0pF | | | | |
| 10pF | | | | |
| 12pF | | | | |
| 15pF | | | | |
| 18pF | | | | |
| 22pF | | | | |
| 27pF | | | | |
| 33pF | | | | |
| 39pF | | | | |
| 47pF | | | | |
| 56pF | | | | |
| 68pF | | | | |
| 82pF | | | | |
| 100pF | | | | |
| 120pF | | | | |
| 150pF | | | | |
| 180pF | | | | |
| 220pF | | | | |
| 270pF | | | | |
| 330pF | | | | |
| 390pF | | | | |
| 470pF | | | | |
| 560pF | | | | |
| 680pF | | | | |
| 820pF | | | | |
| 1000pF | | | | |
| 1100pF | | | | |
| 1200pF | | | | |
| 1300pF | | | | |
| 1500pF | | | | |
| 1800pF | | | | |
| 2200pF | | | | |
| 2700pF | | | | |
| 3300pF | | | | |
| 3900pF | | | | |
| 4700pF | | | | |
| 5600pF | p34 | | | |
| 6800pF | p34 | | | |
| 8200pF | | p34 | | |
| 10000pF | | p34 | | |
| 12000pF | | | | |
| 15000pF | | | | |
| 18000pF | | | | |
| 20000pF | | | | |
| 22000pF | | | | |
| 27000pF | p34 | | | |
| 33000pF | | | | p34 |
| 39000pF | | | | p34 |
| 47000pF | | | | p34 |

Capacitance Table

p00 Each number in the Part Number List refers to the page number printed at the bottom of the page.

GCM Series High Dielectric Constant Type

p00 ← Part Number List EIA: X7S X7R Murata Temperature Characteristic: X8L

| L×W (mm) | 0.6×0.3 | | | 1.0×0.5 | | | | | | 1.6×0.8 | | | | | 2.0×1.25 | | | | | | | | | | |
|---------------------|---------|-----|-----|---------|-----|-----|-----|-----|-----|---------|-----|-----|-----|-----|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| T max. (mm) | 0.33 | | | 0.55 | | | 0.6 | 0.7 | 0.9 | | | | | 0.7 | 0.95 | | | 1.4 | | | | | | | |
| Rated Voltage (Vdc) | 25 | 16 | 10 | 100 | 50 | 25 | 16 | 10 | 10 | 100 | 50 | 25 | 16 | 6.3 | 100 | 100 | 50 | 25 | 16 | 100 | 50 | 35 | | | |
| Cap. / TC Code | X7R | X7R | X7R | X7R | X8L | X7R | X8L | X7R | X7S | X7R | X7R | X7R | X7R | X7R | X7R | X7R | X7R | X7R | X7R | X7R | X7R | X7R | X8L | X7R | X7S |
| 100pF | p35 | | | | | | | | | | | | | | | | | | | | | | | | |
| 150pF | p35 | | | | | | | | | | | | | | | | | | | | | | | | |
| 220pF | p35 | | | p35 | | p35 | | | | | | | | | | | | | | | | | | | |
| 330pF | p35 | p35 | | p35 | | p35 | | | | | | | | | | | | | | | | | | | |
| 470pF | p35 | | | p35 | | p35 | | | | | | | | | | | | | | | | | | | |
| 680pF | p35 | p35 | | p35 | | p35 | | | | | | | | | | | | | | | | | | | |
| 1000pF | p35 | | | p35 | | p35 | | | | | | | p35 | | | | | | | | | | | | |
| 1500pF | p35 | | | p35 | | p35 | | | | | | | p35 | | | | | | | | | | | | |
| 2200pF | p35 | p35 | | p35 | | p35 | | | | | | | p35 | | | | | | | | | | | | |
| 3300pF | p35 | p35 | | p35 | | p35 | | | | | | | p35 | | | | | | | | | | | | |
| 4700pF | | | p35 | p35 | | p35 | | | | | | | p35 | | | | | | | | | | | | |
| 6800pF | | | p35 | | | p35 | | | | | | | p35 | | | | p35 | | | | | | | | |
| 10000pF | | | p35 | | | p35 | | p35 | | | | | p35 | | | | p35 | | | | | | | | |
| 15000pF | | | | | | p35 | | p35 | | | | | p35 | | | | p35 | | | | | | | | |
| 22000pF | | | | | | p35 | | p35 | | | | | p35 | | | | p35 | | | | | | | | |
| 33000pF | | | | | p35 | p35 | | p35 | p35 | | | | | | | p35 | | | | | | | | | |
| 47000pF | | | | | p35 | p35 | | p35 | p35 | | | | | | | | | | | | | p35 | | | |
| 68000pF | | | | | p35 | p35 | | p35 | p35 | | | | | | | | | | | | | p35 | | | |
| 0.10μF | | | | | p35 | p35 | p35 | | p35 | | | | | | | | | | | | | p35 | | | |
| 0.15μF | | | | | | | | | p35 | | | | | | | | | | | | | | p35 | | |
| 0.22μF | | | | | | | | | p35 | | | | | p35 | p35 | | | | | | | | p36 | p36 | |
| 0.33μF | | | | | | | | | | | | | | | | p35 | | | | | | | | | |
| 0.47μF | | | | | | | | | p35 | | | | | | p35 | p35 | | | | | | | p36 | | |
| 0.68μF | | | | | | | | | | p35 | | | | | | | | | | | | | p36 | | |
| 1.0μF | | | | | | | | | | p35 | | | | | p35 | p35 | | | | | | | p36 | | |
| 1.5μF | | | | | | | | | | | | | | | | | | | | | | | p36 | | |
| 2.2μF | | | | | | | | | | | | | | | | | | | | | | | | p36 | |
| 4.7μF | | | | | | | | | | | | | | | | p35 | | | | | | | | | |
| 10μF | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22μF | | | | | | | | | | | | | | | | | | | | | | | | | |
| 47μF | | | | | | | | | | | | | | | | | | | | | | | | | |

Continued on the following page. ↗

Capacitance Table

p00 Each number in the Part Number List refers to the page number printed at the bottom of the page.

(→ GCM Series High Dielectric Constant Type)

p00 ← Part Number List EIA: X7S X7R Murata Temperature Characteristic: X8L

| L×W (mm) | 2.0×1.25 | | | | | | | | | | 3.2×1.6 | | | | | | | | | | 3.2×2.5 | | | | |
|---------------------|----------|-----|-----|-----|-----|------|-----|-----|-----|-----|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|-----|-----|-----|--|
| | 1.4 | | | | | 1.45 | | | | | 1.25 | | 1.8 | | | | | | 1.9 | 2.2 | | | | | |
| T max. (mm) | | | | | | | | | | | 100 | 50 | | | | | | | 25 | 100 | | | | | |
| Rated Voltage (Vdc) | 25 | 16 | 10 | 6.3 | 100 | 35 | 25 | 16 | 100 | 50 | 100 | 50 | 25 | 16 | 10 | 6.3 | 25 | 100 | | | | | | | |
| Cap. / TC Code | X8L | X7R | X7R | X7S | X7R | X7S | X8L | X7S | X8L | X7S | X7S | X7R | X7R | X8L | X7R | X7S | X7R | X7S | X7R | X7R | X7R | X7S | X8L | X7S | |
| 100pF | | | | | | | | | | | | | | | | | | | | | | | | | |
| 150pF | | | | | | | | | | | | | | | | | | | | | | | | | |
| 220pF | | | | | | | | | | | | | | | | | | | | | | | | | |
| 330pF | | | | | | | | | | | | | | | | | | | | | | | | | |
| 470pF | | | | | | | | | | | | | | | | | | | | | | | | | |
| 680pF | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1000pF | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1500pF | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2200pF | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3300pF | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4700pF | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6800pF | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10000pF | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15000pF | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22000pF | | | | | | | | | | | | | | | | | | | | | | | | | |
| 33000pF | | | | | | | | | | | | | | | | | | | | | | | | | |
| 47000pF | | | | | | | | | | | | | | | | | | | | | | | | | |
| 68000pF | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.10μF | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.15μF | p36 | p36 | | | | | | | | | | | | | | | | | | | | | | | |
| 0.22μF | | p36 | | | | | | | | | p36 | | | | | | | | | | | | | | |
| 0.33μF | | p36 | | | | | | | | | | p36 | | | | | | | | | | | | | |
| 0.47μF | | | | | | | | | | | | | p36 | | | | | | | | | | | | |
| 0.68μF | | p36 | | | | | | | | | | | | p36 | | | | | | | | | | | |
| 1.0μF | | p36 | | | | | | | | p36 | | | | | | p36 | | | | | | | | | |
| 1.5μF | | p36 | | | | | | | | | | | | | | | | | | | | | | | |
| 2.2μF | | p36 | p36 | p36 | | | | | | | | | | | | | | | | | | | | | |
| 4.7μF | | | p36 | | p36 | | | | | | | | | | p36 | | | | | | | | | | |
| 10μF | | | | p36 | | p36 | | | | | | | | | | | | | | | | | | | |
| 22μF | | | | | | | | | | | | | | | | | | | | | | | | | |
| 47μF | | | | | | | | | | | | | | | | | | | | | | | | | |

Continued on the following page. ↗

Capacitance Table

p00 Each number in the Part Number List refers to the page number printed at the bottom of the page.

(→ GCM Series High Dielectric Constant Type)

p00 ← Part Number List EIA: X7S X7R Murata Temperature Characteristic: X8L

| L×W (mm) | 3.2×2.5 | | | | | | | | | |
|---------------------|---------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| | 2.2 | | 2.7 | | | | | | 2.85 | |
| T max. (mm) | 2.2 | | 2.7 | | | | | | 2.85 | |
| Rated Voltage (Vdc) | 16 | 50 | | | 35 | 25 | 16 | 10 | 6.3 | 25 |
| Cap. / TC Code | X7R | X8L | X7R | X7S | X7S | X7R | X7R | X7R | X8L | X7S |
| 100pF | | | | | | | | | | |
| 150pF | | | | | | | | | | |
| 220pF | | | | | | | | | | |
| 330pF | | | | | | | | | | |
| 470pF | | | | | | | | | | |
| 680pF | | | | | | | | | | |
| 1000pF | | | | | | | | | | |
| 1500pF | | | | | | | | | | |
| 2200pF | | | | | | | | | | |
| 3300pF | | | | | | | | | | |
| 4700pF | | | | | | | | | | |
| 6800pF | | | | | | | | | | |
| 10000pF | | | | | | | | | | |
| 15000pF | | | | | | | | | | |
| 22000pF | | | | | | | | | | |
| 33000pF | | | | | | | | | | |
| 47000pF | | | | | | | | | | |
| 68000pF | | | | | | | | | | |
| 0.10μF | | | | | | | | | | |
| 0.15μF | | | | | | | | | | |
| 0.22μF | | | | | | | | | | |
| 0.33μF | | | | | | | | | | |
| 0.47μF | | | | | | | | | | |
| 0.68μF | | | | | | | | | | |
| 1.0μF | | | | | | | | | | |
| 1.5μF | | | | | | | | | | |
| 2.2μF | | | | | | | | | | |
| 4.7μF | | | | p36 | | | | | | |
| 10μF | p36 | p36 | | p36 | p36 | p36 | | | | |
| 22μF | | | | | | | p36 | p36 | p36 | p36 |
| 47μF | | | | | | | | p36 | | |

GC3 Series High Dielectric Constant Type

p00 ← Part Number List EIA: X7T

| L×W (mm) | 2.0×1.25 | | 3.2×1.6 | | | | 3.2×2.5 | | | | 4.5×3.2 | | | | 5.7×5.0 | | | | | |
|---------------------|----------|------|---------|------|-----|-----|---------|-----|-----|-----|---------|-----|-----|-----|---------|-----|-----|-----|-----|-----|
| | 1.0 | 1.45 | 1.0 | 1.25 | 1.8 | 1.5 | 2.0 | 1.5 | 2.0 | 1.5 | 2.0 | 2.0 | 2.7 | | | | | | | |
| Rated Voltage (Vdc) | 250 | 250 | 450 | 250 | 630 | 450 | 250 | 630 | 450 | 250 | 630 | 250 | 630 | 450 | 250 | 630 | 450 | 250 | 630 | 250 |
| Cap. / TC Code | X7T | X7T | X7T | X7T | X7T | X7T | X7T | X7T | X7T | X7T | X7T | X7T | X7T | X7T | X7T | X7T | X7T | X7T | X7T | X7T |
| 10000pF | p38 | | p38 | | p38 | | | | | | | | | | | | | | | |
| 15000pF | p38 | | p38 | | | | p38 | | | | | | | | | | | | | |
| 22000pF | | p38 | | | p38 | | | | | p38 | | | | | | | | | | |
| 33000pF | | | | p38 | p38 | | | | | | p38 | | | | | | | | | |
| 47000pF | | | | | | p38 | p38 | | | | | p38 | | | | | | | | |
| 68000pF | | | | | | | | p38 | | | | | p38 | | | | | | | |
| 0.10μF | | | | | | | | | p38 | | | | | p38 | | | | | | |
| 0.15μF | | | | | | | | | | p38 | | | | | p38 | | | | | |
| 0.22μF | | | | | | | | | | | p38 | | | | | p38 | | | | |
| 0.33μF | | | | | | | | | | | | p38 | | | | | p38 | | | |
| 0.47μF | | | | | | | | | | | | | p38 | | | | | p38 | | |
| 0.68μF | | | | | | | | | | | | | | p38 | | | | | p38 | |
| 1.0μF | | | | | | | | | | | | | | | | | | | | p38 |

Capacitance Table

p00 Each number in the Part Number List refers to the page number printed at the bottom of the page.

(→ GCJ Series High Dielectric Constant Type)

p00 ← Part Number List EIA: X7S X7R X8R Murata Temperature Characteristic: X8L X8M

| L×W (mm) | 3.2×1.6 | | | 3.2×2.5 | | | | | | | | | | | | 4.5×3.2 | | | | | 5.7×5.0 | | | | | |
|---------------------|-------------|-----|-----|---------|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|---------|-----|-----|------|-----|---------|------|-----|-----|-----|--|
| | T max. (mm) | | 1.5 | 2.0 | | | 2.3 | | | 2.8 | | | 2.85 | | 1.5 | | 2.0 | | | 2.0 | | | | | | |
| Rated Voltage (Vdc) | 25 | 630 | 250 | 1000 | 630 | 250 | 100 | | | 50 | | | 25 | 16 | 6.3 | 25 | 630 | 250 | 1000 | 630 | 250 | 1000 | 630 | 250 | | |
| Cap. / TC Code | X8L | X7S | X7R | X7R | X7R | X7R | X8L | X7R | X7S | X7R | X7S | X8L | X8R | X7R | X7R | X8L | X7S | X7R | X7R | X7R | X7R | X7R | X7R | X7R | X7R | |
| 220pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 270pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 330pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 390pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 470pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 560pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 680pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 820pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1000pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1200pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1500pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1800pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2200pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2700pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3300pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3900pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4700pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5600pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6800pF | | | p43 | | | | | | | | | | | | | | | | | | | | | | | |
| 8200pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10000pF | | | p43 | | | | | | | | | | | | | | | | | | | | | | | |
| 12000pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15000pF | | | | | p43 | p43 | | | | | | | | | | | | | | | | | | | | |
| 18000pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22000pF | | | | | p43 | p43 | | | | | | | | | | | | | | | | | | | | |
| 27000pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 33000pF | | | | | | p43 | | | | | | | | | | | | | | | | | | | | |
| 39000pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 47000pF | | | | | | p43 | | | | | | | | | | | | | | | | | | | | |
| 56000pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 68000pF | | | | p43 | | | | | | | | | | | | | | | | | | | | | | |
| 82000pF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.10μF | | | | | | p43 | | | | | | | | | | | | | | | | | | | | |
| 0.12μF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.15μF | | | | p43 | | | | | | | | | | | | | | | | | | | | | | |
| 0.18μF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.22μF | | | | | | p43 | | | | | | | | | | | | | | | | | | | | |
| 0.27μF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.33μF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.39μF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.47μF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.56μF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.68μF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.82μF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.0μF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.5μF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.2μF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.3μF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.7μF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6.8μF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10μF | p43 | p43 | | | | | | | | | | | | | | | | | | | | | | | | |
| 22μF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 47μF | | | | | | | | | | | | | | | | | | | | | | | | | | |

Capacitance Table

p00 Each number in the Part Number List refers to the page number printed at the bottom of the page.

GCD Series High Dielectric Constant Type

p00 ← Part Number List EIA: X7R

| L×W (mm) | 1.6×0.8 | | | 2.0×1.25 | | | |
|---------------------|-------------|-----|-----|----------|-----|------|-----|
| | T max. (mm) | | | 0.9 | 0.7 | 0.95 | 1.4 |
| Rated Voltage (Vdc) | 100 | 50 | 25 | 100 | 100 | 100 | 50 |
| Cap. / TC Code | X7R | X7R | X7R | X7R | X7R | X7R | X7R |
| 1000pF | p46 | p46 | | p46 | | | |
| 1200pF | p46 | p46 | | p46 | | | |
| 1500pF | p46 | p46 | | p46 | | | |
| 1800pF | p46 | p46 | | p46 | | | |
| 2200pF | p46 | p46 | | p46 | | | |
| 2700pF | p46 | p46 | | p46 | | | |
| 3300pF | p46 | p46 | | p46 | | | |
| 3900pF | p46 | p46 | | p46 | | | |
| 4700pF | p46 | p46 | | p46 | | | |
| 5600pF | p46 | p46 | | p46 | | | |
| 6800pF | p46 | p46 | | | p46 | | |
| 8200pF | p46 | p46 | | | | p46 | |
| 10000pF | p46 | p46 | | | | p46 | |
| 12000pF | p46 | p46 | | | | p46 | |
| 15000pF | p46 | p46 | | | | p46 | p46 |
| 18000pF | p46 | p46 | | | | p46 | p46 |
| 22000pF | p46 | p46 | | | | p46 | p46 |
| 27000pF | | | p46 | | | p46 | p46 |
| 33000pF | | | p46 | | | p46 | p46 |
| 39000pF | | | p46 | | | p46 | p46 |
| 47000pF | | | p46 | | | p46 | p46 |
| 56000pF | | | | | | p46 | p46 |
| 68000pF | | | | | | p46 | p46 |
| 82000pF | | | | | | p46 | p46 |
| 0.10μF | | | | | | p46 | p46 |

GCE Series High Dielectric Constant Type

p00 ← Part Number List EIA: X7R

| L×W (mm) | 1.6×0.8 | | | 2.0×1.25 | | | |
|---------------------|-------------|-----|-----|----------|-----|------|------|
| | T max. (mm) | | | 0.9 | 0.7 | 0.95 | 1.45 |
| Rated Voltage (Vdc) | 100 | 50 | 25 | 100 | 100 | 100 | 50 |
| Cap. / TC Code | X7R | X7R | X7R | X7R | X7R | X7R | X7R |
| 220pF | | | | | | p48 | |
| 270pF | | | | | | p48 | |
| 330pF | | | | | | p48 | |
| 390pF | | | | | | p48 | |
| 470pF | | | | | | p48 | |
| 560pF | | | | | | p48 | |
| 680pF | | | | | | p48 | |
| 820pF | | | | | | p48 | |
| 1000pF | p48 | p48 | | p48 | | | |
| 1200pF | p48 | p48 | | p48 | | | |
| 1500pF | p48 | p48 | | p48 | | | |
| 1800pF | p48 | p48 | | p48 | | | |
| 2200pF | p48 | p48 | | p48 | | | |
| 2700pF | p48 | p48 | | p48 | | | |
| 3300pF | p48 | p48 | | p48 | | | |
| 3900pF | p48 | p48 | | p48 | | | |
| 4700pF | p48 | p48 | | p48 | | | |
| 5600pF | p48 | p48 | | p48 | | | |
| 6800pF | p48 | p48 | | | p48 | | |
| 8200pF | p48 | p48 | | | | p48 | |
| 10000pF | p48 | p48 | | | | p48 | |
| 12000pF | p48 | p48 | | | | p48 | |
| 15000pF | p48 | p48 | | | | p48 | p48 |
| 18000pF | p48 | p48 | | | | p48 | p48 |
| 22000pF | p48 | p48 | | | | p48 | p48 |
| 27000pF | | | p48 | | | p48 | p48 |
| 33000pF | | | p48 | | | p48 | p48 |
| 39000pF | | | p48 | | | p48 | p48 |
| 47000pF | | | p48 | | | p48 | p48 |
| 56000pF | | | | | | p48 | p48 |
| 68000pF | | | | | | p48 | p48 |
| 82000pF | | | | | | p48 | p48 |
| 0.10μF | | | | | | p48 | p48 |

NFM Series

p00 ← Part Number List

| L×W (mm) | 2.0×1.25 | | | 3.2×1.6 | |
|---------------------|-------------|-----|-----|---------|-----|
| | T max. (mm) | | | 0.95 | 1.5 |
| Rated Voltage (Vdc) | 50 | 16 | 10 | 100 | 50 |
| Cap. / TC Code | - | - | - | - | - |
| 220pF | p50 | | | | |
| 470pF | p50 | | | | |
| 1000pF | p50 | | | | |
| 2200pF | p50 | | | | |
| 10000pF | | | | p50 | p50 |
| 15000pF | | | | | p50 |
| 22000pF | p50 | | | | p50 |
| 0.10μF | | | p50 | | p50 |
| 0.22μF | | | p50 | | |
| 0.47μF | | | p50 | | |
| 1.0μF | | p50 | | | |

Capacitance Table

p00 Each number in the Part Number List refers to the page number printed at the bottom of the page.

KCM Series High Dielectric Constant Type

p00 ← Part Number List EIA: X7S X7R

| L×W (mm) | 6.1×5.3 | | | | | | | | | | | | | | | | | | |
|---------------------|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| T max. (mm) | 3.0 | | | | | 3.9 | | | | | 5.0 | | | | 6.7 | | | | |
| Rated Voltage (Vdc) | 100 | 63 | 50 | 35 | 25 | 100 | 63 | 50 | 35 | 25 | 100 | 50 | 35 | 25 | 100 | 63 | 50 | 35 | 25 |
| Cap. / TC Code | X7R | X7R | X7R | X7R | X7R | X7R | X7R | X7R | X7R | X7S | X7R | X7R | X7R | X7R | X7R | X7R | X7R | X7R | X7S |
| 4.7µF | p53 | p53 | p53 | | | | | | | | | | | | | | | | |
| 6.8µF | | | | | | p53 | | | | | | | | | | | | | |
| 10µF | | | p53 | p53 | | p53 | p53 | | | | p53 | | | | | | | | |
| 15µF | | | | p53 | p53 | | | | | | | | | | p53 | | | | |
| 17µF | | | | | | | | p53 | p53 | | | | | | | | | | |
| 22µF | | | | | | | | | p53 | p53 | | | p53 | p53 | | p53 | p53 | | |
| 33µF | | | | | | | | | | p53 | | | | p53 | p53 | | | p53 | |
| 47µF | | | | | | | | | | | p53 | | | | | | | p53 | p53 |
| 68µF | | | | | | | | | | | | | | | | | | | p53 |
| 100µF | | | | | | | | | | | | | | | | | | | p53 |

KC3 Series High Dielectric Constant Type

p00 ← Part Number List EIA: X7T

| L×W (mm) | 6.1×5.3 | | | | | | | | | | | |
|---------------------|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| T max. (mm) | 3.0 | | | 3.9 | | | 5.0 | | | 6.7 | | |
| Rated Voltage (Vdc) | 630 | 450 | 250 | 630 | 450 | 250 | 630 | 450 | 250 | 630 | 450 | 250 |
| Cap. / TC Code | X7T | X7T | X7T | X7T | X7T | X7T | X7T | X7T | X7T | X7T | X7T | X7T |
| 0.10µF | p56 | | | | | | | | | | | |
| 0.15µF | p56 | | | | | | | | | | | |
| 0.22µF | | p56 | | p56 | | | | | | | | |
| 0.27µF | | | | p56 | | | | | | | | |
| 0.33µF | p56 | p56 | | | | | | | | | p56 | |
| 0.47µF | p56 | p56 | p56 | | | | | | | | p56 | |
| 0.56µF | | | | p56 | p56 | | | | | | p56 | |
| 0.68µF | | p56 | p56 | | | | p56 | p56 | | | | |
| 1.0µF | | | | | p56 | p56 | p56 | p56 | | | | |
| 1.2µF | | | | | | | | | | p56 | p56 | |
| 1.5µF | | | | | | | | p56 | p56 | | | |
| 2.2µF | | | | | | | | | | | p56 | p56 |

GCG Series Temperature Compensating Type

p00 ← Part Number List Murata Temperature Characteristic: X8G

| L×W (mm) | 1.0×0.5 | 1.6×0.8 | 2.0×1.25 | |
|---------------------|---------|---------|----------|------|
| T max. (mm) | 0.55 | 0.9 | 0.7 | 0.95 |
| Rated Voltage (Vdc) | 50 | 50 | 50 | 50 |
| Cap. / TC Code | X8G | X8G | X8G | X8G |
| 10pF | | p61 | | |
| 12pF | | p61 | | |
| 15pF | | p61 | | |
| 18pF | | p61 | | |
| 22pF | | p61 | | |
| 27pF | | p61 | | |
| 33pF | | p61 | | |
| 39pF | | p61 | | |
| 47pF | | p61 | | |
| 56pF | | p61 | | |
| 68pF | | p61 | | |
| 82pF | | p61 | | |
| 100pF | | p61 | | |
| 120pF | p61 | p61 | | |
| 150pF | p61 | p61 | | |
| 180pF | p61 | p61 | | |
| 220pF | p61 | p61 | | |
| 270pF | p61 | p61 | | |
| 330pF | p61 | p61 | | |
| 390pF | p61 | p61 | | |
| 470pF | p61 | p61 | | |
| 560pF | | p61 | | |
| 680pF | | p61 | | |
| 820pF | | p61 | | |
| 1000pF | | p61 | p61 | |
| 1200pF | | p61 | p61 | |
| 1500pF | | p61 | p61 | |
| 1800pF | | p61 | p61 | |
| 2200pF | | p61 | p61 | |
| 2700pF | | | p61 | |
| 3300pF | | | p61 | |
| 3900pF | | | p61 | |
| 4700pF | | | p61 | |
| 5600pF | | | | p61 |
| 6800pF | | | | p61 |
| 8200pF | | | | p61 |
| 10000pF | | | | p61 |

KCA Series Temperature Compensating Type

p00 ← Part Number List EIA: U2J

| L×W (mm) | 6.1×5.3 | | | |
|------------------------------|---------|-----|-----|-----|
| T max. (mm) | 3.0 | 3.9 | 5.0 | 6.7 |
| Rated Voltage (Vac (r.m.s.)) | 250 | 250 | 250 | 250 |
| Cap. / TC Code | U2J | U2J | U2J | U2J |
| 100pF | p59 | | | |
| 150pF | p59 | | | |
| 220pF | p59 | | | |
| 330pF | p59 | | | |
| 470pF | p59 | | | |
| 680pF | p59 | | | |
| 1000pF | p59 | | | |
| 1500pF | p59 | | | |
| 2200pF | p59 | | | |
| 3300pF | p59 | | | |
| 4700pF | | p59 | | |
| 6800pF | | | p59 | |
| 10000pF | | | | p59 |