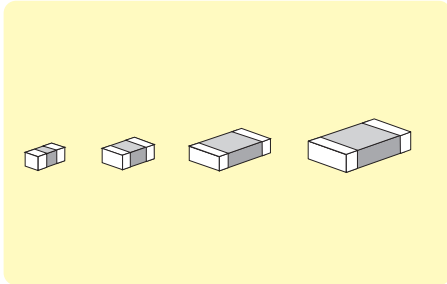


**MURATA type GRM series / KEMET type C0805C & C1206C**



An extensive range of surface mount, multilayer ceramic capacitors from Murata and KEMET offering a choice of chip size, dielectric and in numerous cases voltage. Terminations have a nickel barrier for improved solderability. Supplied taped and reeled.



- ◆ High performance & reliability
- ◆ Choice of dielectric : NPO (COG), X7R or Z5U/Y5V
- ◆ Choice of voltage in numerous cases
- ◆ Values from **0.5pF to 10µF**
- ◆ Nickel barrier terminations
- ◆ Suitable for wave & reflow soldering
- ◆ Industry standard chip sizes : **0402, 0603, 0805 & 1206** (KEMET - 0805 & 1206 sizes only)
- ◆ Supplied taped & reeled



**Specification**

Working voltage ..... As listed  
 Capacitance tolerance ..... NPO ±5% (except C: ±0.25pF, D: ±0.5pF)  
   X7R ±10%  
   Z5U ±20%  
   Y5V -20,+80%  
 Temperature coefficient ..... NPO ±30ppm/°C  
   X7R ±15% over -55°C to +125°C  
   Z5U +22%, -56% over +10°C to +85°C  
   Y5V +22%, -82% over -30°C to +85°C  
 Operating temperature range ..... NPO/ X7R -55°C to +125°C  
   Z5U +10°C to +85°C  
   Y5V -30°C to +85°C  
 Insulation resistance (whichever is less) ..... Murata ≥10,000MΩ or 500MΩ/µF (all dielectrics)  
   Kemet ≥100,000MΩ or 1000MΩ/µF (NPO & X7R)  
   ≥10,000MΩ or 100MΩ/µF (Z5U & Y5V ≥16V)  
   ≥10,000MΩ or 50MΩ/µF (Y5V 10V)

**Marking**

No marking appears on the product.

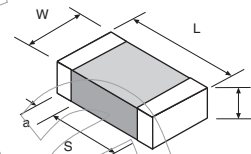
**Packaging\***

TAPE : 8mm wide, 4mm pitch (2mm pitch : 0402 chip size)

REEL : 178mm dia.  
 (330mm dia. : Murata parts with an asterisk (\*) next to the value)

\* N.B. Some popular Murata parts are also available in larger quantities on 330mm dia. reels, indicated by an asterisk (\*) next to the value.

**Dimensions (mm)**



Chip Size	L	W	a	S
0402	1.0	0.5	0.15 min.	0.4 min.
0603	1.6	0.8	0.2 min.	0.5 min.
0805	2.0	1.25	0.2 min.(0.5)	0.7 min.(N/A)
1206	3.2	1.6	0.3 min.(0.5)	1.5 min.(N/A)

( ) : KEMET only

Dimension H - see following pages

**DIELECTRIC PERFORMANCE & APPLICATION**

**NPO (COG):** Low K temperature compensation type. Extremely stable over wide variations of temperature, voltage, frequency and time. Very low dissipation factor. Used for precision timing, active and passive filtering, frequency setting and tuning circuits.

**X7R:** Medium K semi-stable type offering greater volumetric efficiency. Used for by-pass, coupling and filtering in audio & video equipment, computers, telecommunications, etc, where moderate capacitance variations are permissible and dissipation factor is not critical.

**Z5U/Y5V:** High K general purpose types for by-pass and decoupling applications where temperature stability is not of major importance. Offer highest volumetric efficiency.

**MURATA type GRM15 (0402)**

**0402**

**NPO (COG) dielectric**

Value (pF)	Tolerance	Manf. Part No. & anglia Order Code
<b>50 Volt</b>		
0.5	0.25pF	GRM1555C1HR50CZ01D
1.0	0.25pF	GRM1555C1H1R0CZ01D
1.1	0.25pF	GRM1555C1H1R1CZ01D
1.2	0.25pF	GRM1555C1H1R2CZ01D
1.3	0.25pF	GRM1555C1H1R3CZ01D
1.5	0.25pF	GRM1555C1H1R5CZ01D
1.6	0.25pF	GRM1555C1H1R6CZ01D
1.8	0.25pF	GRM1555C1H1R8CZ01D
2.0	0.25pF	GRM1555C1H2R0CZ01D
2.2	0.25pF	GRM1555C1H2R2CZ01D
2.4	0.25pF	GRM1555C1H2R4CZ01D
2.7	0.25pF	GRM1555C1H2R7CZ01D
3.0	0.25pF	GRM1555C1H3R0CZ01D
3.3	0.25pF	GRM1555C1H3R3CZ01D
3.6	0.25pF	GRM1555C1H3R6CZ01D
3.9	0.25pF	GRM1555C1H3R9CZ01D
4.3	0.25pF	GRM1555C1H4R3CZ01D
4.7	0.25pF	GRM1555C1H4R7CZ01D
5.1	0.5pF	GRM1555C1H5R1DZ01D
5.6	0.5pF	GRM1555C1H5R6DZ01D
6.8	0.5pF	GRM1555C1H6R8DZ01D
7.5	0.5pF	GRM1555C1H7R5DZ01D
8.2	0.5pF	GRM1555C1H8R2DZ01D
9.1	0.5pF	GRM1555C1H9R1DZ01D
10	5%	GRM1555C1H100JZ01D
11	5%	GRM1555C1H110JZ01D
12	5%	GRM1555C1H120JZ01D
13	5%	GRM1555C1H130JZ01D
15	5%	GRM1555C1H150JZ01D
16	5%	GRM1555C1H160JZ01D
18	5%	GRM1555C1H180JZ01D
20	5%	GRM1555C1H200JZ01D
22	5%	GRM1555C1H220JZ01D
24	5%	GRM1555C1H240JZ01D
27	5%	GRM1555C1H270JZ01D
30	5%	GRM1555C1H300JZ01D
33	5%	GRM1555C1H330JZ01D
36	5%	GRM1555C1H360JZ01D
39	5%	GRM1555C1H390JZ01D
43	5%	GRM1555C1H430JZ01D
47	5%	GRM1555C1H470JZ01D
51	5%	GRM1555C1H510JZ01D
56	5%	GRM1555C1H560JD01D
62	5%	GRM1555C1H620JD01D
68	5%	GRM1555C1H680JD01D
75	5%	GRM1555C1H750JD01D
82	5%	GRM1555C1H820JD01D
91	5%	GRM1555C1H910JD01D
100	5%	GRM1555C1H101JD01D
110	5%	GRM1555C1H111JA01D
120	5%	GRM1555C1H121JA01D
130	5%	GRM1555C1H131JA01D
150	5%	GRM1555C1H151JA01D
160	5%	GRM1555C1H161JA01D

**X7R dielectric : 10% tol.**

Value (pF)	Manf. Part No. & anglia Order Code
<b>50 Volt</b>	
220	GRM155R71H221KA01D
270	GRM155R71H271KA01D
330	GRM155R71H331KA01D
390	GRM155R71H391KA01D
470	GRM155R71H471KA01D
560	GRM155R71H561KA01D
680	GRM155R71H681KA01D
820	GRM155R71H821KA01D
1000	GRM155R71H102KA01D
1200	GRM155R71H122KA01D
1500	GRM155R71H152KA01D
1800	GRM155R71H182KA01D
2200	GRM155R71H222KA01D
2700	GRM155R71H272KA01D
3300	GRM155R71H332KA01D
3900	GRM155R71H392KA01D
<b>25 Volt</b>	
4700	GRM155R71E472KA01D
5600	GRM155R71E562KA01D
6800	GRM155R71E682KA01D
<b>16 Volt</b>	
8200	GRM155R71C822KA01D
<b>(µF)</b>	
0.01	GRM155R71C103KA01D

**Y5V dielectric : -20,+80% tol.**

Value (pF)	Manf. Part No. & anglia Order Code
<b>50 Volt</b>	
2200	GRM155F51H222ZA01D
3300	GRM155F51H332ZA01D
3900	GRM155F51H392ZA01D
4700	GRM155F51H472ZA01D
5600	GRM155F51H562ZA01D
6800	GRM155F51H682ZA01D
8200	GRM155F51H822ZA01D
<b>(µF)</b>	
0.01	GRM155F51H103ZA01D
0.012	GRM155F51H123ZA01D
0.015	GRM155F51H153ZA01D
<b>25 Volt</b>	
0.022	GRM155F51E223ZA01D
<b>16 Volt</b>	
0.033	GRM155F51C333ZA01D
0.039	GRM155F51C393ZA01D
0.047	GRM155F51C473ZA01D
0.056	GRM155F51C563ZA01D
0.068	GRM155F51C683ZA01D
0.082	GRM155F51C823ZA01D
0.1	GRM155F51C104ZA01D
<b>10 Volt</b>	
0.22	GRM155F51A224ZA01D
0.33	GRM155F51A334ZE01D
0.47	GRM155F51A474ZE01D
<b>6.3 Volt</b>	
1.0	GRM155F50J105ZE01D

**Dimensions**

Murata 0402 chip height H = 0.55mm max., all values.  
See page 130 for all other dimensions.

**0603**

overleaf > > >

MURATA type GRM18 (0603)

0603

NPO (COG) dielectric

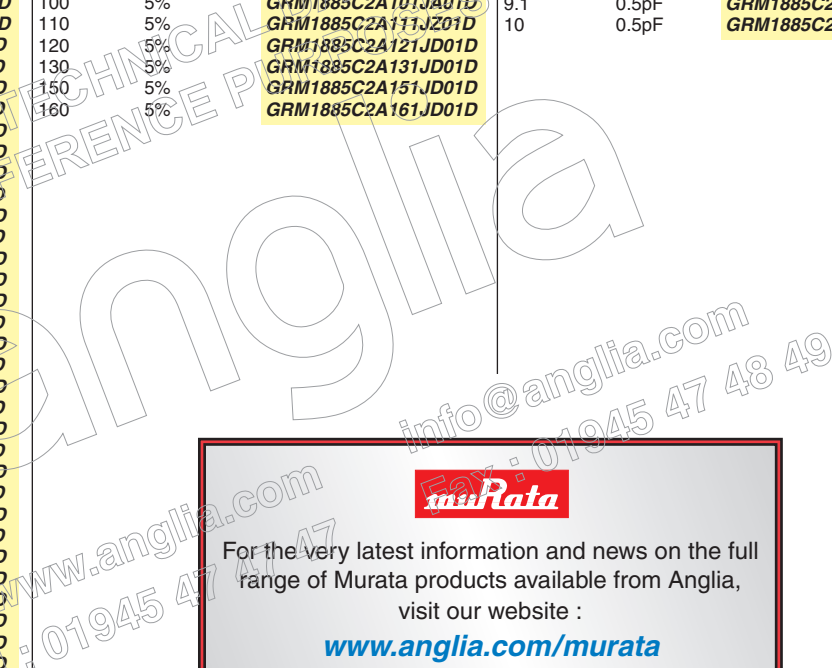
Value (pF)	Tolerance	Manf. Part No. & anglia Order Code
<b>50 Volt</b>		
0.5	0.25pF	GRM1885C1HR50CZ01D
1.0	0.25pF	GRM1885C1H1R0CZ01D
1.1	0.25pF	GRM1885C1H1R1CZ01D
1.2	0.25pF	GRM1885C1H1R2CZ01D
1.3	0.25pF	GRM1885C1H1R3CZ01D
1.5	0.25pF	GRM1885C1H1R5CZ01D
1.6	0.25pF	GRM1885C1H1R6CZ01D
1.8	0.25pF	GRM1885C1H1R8CZ01D
2.0	0.25pF	GRM1885C1H2R0CZ01D
2.2	0.25pF	GRM1885C1H2R2CZ01D
2.4	0.25pF	GRM1885C1H2R4CZ01D
2.7	0.25pF	GRM1885C1H2R7CZ01D
3.0	0.25pF	GRM1885C1H3R0CZ01D
3.3	0.25pF	GRM1885C1H3R3CZ01D
3.6	0.25pF	GRM1885C1H3R6CZ01D
3.9	0.25pF	GRM1885C1H3R9CZ01D
4.3	0.25pF	GRM1885C1H4R3CZ01D
4.7	0.25pF	GRM1885C1H4R7CZ01D
5.1	0.5pF	GRM1885C1H5R1DZ01D
5.6	0.5pF	GRM1885C1H5R6DZ01D
6.2	0.5pF	GRM1885C1H6R2DZ01D
6.8	0.5pF	GRM1885C1H6R8DZ01D
7.5	0.5pF	GRM1885C1H7R5DZ01D
8.2	0.5pF	GRM1885C1H8R2DZ01D
9.1	0.5pF	GRM1885C1H9R1DZ01D
10	5%	GRM1885C1H100JA01D
11	5%	GRM1885C1H110JA01D
12	5%	GRM1885C1H120JA01D
13	5%	GRM1885C1H130JA01D
15	5%	GRM1885C1H150JA01D
16	5%	GRM1885C1H160JA01D
18	5%	GRM1885C1H180JA01D
20	5%	GRM1885C1H200JZ01D
22	5%	GRM1885C1H220JA01D
24	5%	GRM1885C1H240JZ01D
27	5%	GRM1885C1H270JA01D
30	5%	GRM1885C1H300JA01D
33	5%	GRM1885C1H330JA01D
36	5%	GRM1885C1H360JZ01D
39	5%	GRM1885C1H390JA01D
43	5%	GRM1885C1H430JZ01D
47	5%	GRM1885C1H470JA01D
51	5%	GRM1885C1H510JZ01D
56	5%	GRM1885C1H560JA01D
62	5%	GRM1885C1H620JZ01D
68	5%	GRM1885C1H680JA01D
75	5%	GRM1885C1H750JZ01D
82	5%	GRM1885C1H820JA01D
91	5%	GRM1885C1H910JZ01D
100	5%	GRM1885C1H101JA01D
110	5%	GRM1885C1H111JA01D
120	5%	GRM1885C1H121JA01D
130	5%	GRM1885C1H131JA01D
150	5%	GRM1885C1H151JA01D
160	5%	GRM1885C1H161JA01D
180	5%	GRM1885C1H181JA01D
200	5%	GRM1885C1H201JA01D
220	5%	GRM1885C1H221JA01D
240	5%	GRM1885C1H241JA01D
270	5%	GRM1885C1H271JA01D
300	5%	GRM1885C1H301JA01D
330	5%	GRM1885C1H331JA01D
360	5%	GRM1885C1H361JA01D
390	5%	GRM1885C1H391JA01D
430	5%	GRM1885C1H431JA01D
470	5%	GRM1885C1H471JA01D
510	5%	GRM1885C1H511JA01D

NPO (COG) dielectric

Value (pF)	Tolerance	Manf. Part No. & anglia Order Code
<b>100 Volt</b>		
11	5%	GRM1885C2A110JZ01D
12	5%	GRM1885C2A120JA01D
13	5%	GRM1885C2A130JZ01D
15	5%	GRM1885C2A150JZ01D
16	5%	GRM1885C2A160JZ01D
18	5%	GRM1885C2A180JZ01D
20	5%	GRM1885C2A200JZ01D
22	5%	GRM1885C2A220JZ01D
24	5%	GRM1885C2A240JZ01D
27	5%	GRM1885C2A270JZ01D
30	5%	GRM1885C2A300JZ01D
33	5%	GRM1885C2A330JZ01D
36	5%	GRM1885C2A360JZ01D
39	5%	GRM1885C2A390JZ01D
43	5%	GRM1885C2A430JZ01D
47	5%	GRM1885C2A470JZ01D
51	5%	GRM1885C2A510JZ01D
56	5%	GRM1885C2A560JZ01D
62	5%	GRM1885C2A620JZ01D
68	5%	GRM1885C2A680JZ01D
75	5%	GRM1885C2A750JZ01D
82	5%	GRM1885C2A820JZ01D
91	5%	GRM1885C2A910JZ01D
100	5%	GRM1885C2A101JA01D
110	5%	GRM1885C2A111JZ01D
120	5%	GRM1885C2A121JD01D
130	5%	GRM1885C2A131JD01D
150	5%	GRM1885C2A151JD01D
160	5%	GRM1885C2A161JD01D

NPO (COG) dielectric

Value (pF)	Tolerance	Manf. Part No. & anglia Order Code
<b>200 Volt</b>		
1.0	0.25pF	GRM1885C2D1R0CV01D
1.1	0.25pF	GRM1885C2D1R1CZ01D
1.2	0.25pF	GRM1885C2D1R2CV01D
1.3	0.25pF	GRM1885C2D1R3CZ01D
1.5	0.25pF	GRM1885C2D1R5CV01D
1.6	0.25pF	GRM1885C2D1R6CZ01D
1.8	0.25pF	GRM1885C2D1R8CV01D
2.0	0.25pF	GRM1885C2D2R0CZ01D
2.2	0.25pF	GRM1885C2D2R2CV01D
2.4	0.25pF	GRM1885C2D2R4CZ01D
2.7	0.25pF	GRM1885C2D2R7CV01D
3.0	0.25pF	GRM1885C2D3R0CZ01D
3.3	0.25pF	GRM1885C2D3R3CV01D
3.6	0.25pF	GRM1885C2D3R6CZ01D
3.9	0.25pF	GRM1885C2D3R9CV01D
4.3	0.25pF	GRM1885C2D4R3CV01D
4.7	0.25pF	GRM1885C2D4R7CV01D
5.1	0.5pF	GRM1885C2D5R1DZ01D
5.6	0.5pF	GRM1885C2D5R6DV01D
6.2	0.5pF	GRM1885C2D6R2DZ01D
6.8	0.5pF	GRM1885C2D6R8DV01D
7.5	0.5pF	GRM1885C2D7R5DZ01D
8.2	0.5pF	GRM1885C2D8R2DV01D
9.1	0.5pF	GRM1885C2D9R1DZ01D
10	0.5pF	GRM1885C2D100DZ01D



For the very latest information and news on the full range of Murata products available from Anglia, visit our website : [www.anglia.com/murata](http://www.anglia.com/murata)

Alternatively, contact our Sales Desk to discuss your specific requirements.

**Dimensions**  
Murata 0603 chip height H = 0.9mm max., all values.  
See page 130 for all other dimensions.

**MURATA type GRM18 (0603)**

0603

**X7R dielectric : 10% tol.**



Value (pF)

Manf. Part No. & anglia Order Code

**50 Volt**

- 220
- 270
- 330
- 390
- 470
- 560
- 680
- 820
- 1000
- 1200
- 1500
- 1800
- 2200
- 2700
- 3300
- 3900
- 4700
- 5600
- 6800
- 8200

- GRM188R71H221KD01D
- GRM188R71H271KD01D
- GRM188R71H331KA01D
- GRM188R71H391KA01D
- GRM188R71H471KA01D
- GRM188R71H561KA01D
- GRM188R71H681KA01D
- GRM188R71H821KA01D
- GRM188R71H102KA01D
- GRM188R71H122KA01D
- GRM188R71H152KA01D
- GRM188R71H182KA01D
- GRM188R71H222KA01D
- GRM188R71H272KA01D
- GRM188R71H332KA01D
- GRM188R71H392KA01D
- GRM188R71H472KA01D
- GRM188R71H562KA01D
- GRM188R71H682KA01D
- GRM188R71H822KA01D

- (µF)
- 0.01
- 0.012
- 0.015
- 0.018

- GRM188R71H103KA01D
- GRM188R71H123KA01D
- GRM188R71H153KA01D
- GRM188R71H183KA01D

**25 Volt**

- 0.022
- 0.027
- 0.033
- 0.039
- 0.047

- GRM188R71E223KA01D
- GRM188R71E273KA01D
- GRM188R71E333KA01D
- GRM188R71E393KA01D
- GRM188R71E473KA01D

**16 Volt**

- 0.039
- 0.047
- 0.056
- 0.068
- 0.082
- 0.1
- 0.1\*

- GRM188R71C393KA01D
- GRM188R71C473KA01D
- GRM188R71C563KA01D
- GRM188R71C683KA01D
- GRM188R71C823KA01D
- GRM188R71C104KA01D
- GRM188R71C104KA01J

**10 Volt**

- 0.12
- 0.15
- 0.18
- 0.22

- GRM188R71A124KA01D
- GRM188R71A154KA01D
- GRM188R71A184KA01D
- GRM188R71A224KA01D

**X7R dielectric : 10% tol.**

Value (pF)

Manf. Part No. & anglia Order Code

**100 Volt**

- 2200
- 2700
- 3300

- GRM188R72A222KD01D
- GRM188R72A272KD01D
- GRM188R72A332KD01D

**X7R dielectric : 10% tol.**

Value (pF)

Manf. Part No. & anglia Order Code

**200 Volt**

- 220
- 270
- 330
- 390
- 470
- 560
- 680
- 820
- 1000
- 1200
- 1500
- 1800

- GRM188R72D221KY21D
- GRM188R72D271KY21D
- GRM188R72D331KY21D
- GRM188R72D391KY21D
- GRM188R72D471KY21D
- GRM188R72D561KY21D
- GRM188R72D681KY21D
- GRM188R72D821KY21D
- GRM188R72D102KY21D
- GRM188R72D122KY21D
- GRM188R72D152KY21D
- GRM188R72D182KY21D

**Y5V dielectric : -20,+80% tol.**

Value (µF)

Manf. Part No. & anglia Order Code

**50 Volt**

- 0.01
- 0.015
- 0.022
- 0.033
- 0.047

- GRM188F51H103ZA01D
- GRM188F51H153ZA01D
- GRM188F51H223ZA01D
- GRM188F51H333ZA01D
- GRM188F51H473ZA01D

**25 Volt**

- 0.068
- 0.1
- 0.1\*

- GRM188F51E683ZA01D
- GRM188F51E104ZA01D
- GRM188F51E104ZA01J

**16 Volt**

- 0.15
- 0.22
- 0.33

- GRM188F51C154ZA01D
- GRM188F51C224ZA01D
- GRM188F51C334ZA01D

**10 Volt**

- 0.47
- 1.0

- GRM188F51A474ZA01D
- GRM188F51A105ZC01D

TECHNICAL REFERENCE PURPOSE ONLY  
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 www.angliia.com  
 info@angliia.com  
 Fax : 01945 47 48 49  
 Tel : 01945 47 47 47

**CAPACITORS - CONVERSION GUIDE**

Pico-Farad (pF)	Nano-Farad (nF)	Micro-Farad (µF)
1000	1.0	0.001
1500	1.5	0.0015
2200	2.2	0.0022
3300	3.3	0.0033
4700	4.7	0.0047
6800	6.8	0.0068
10000	10	0.01
15000	15	0.015
22000	22	0.022
33000	33	0.033
47000	47	0.047
68000	68	0.068
100000	100	0.1
150000	150	0.15
220000	220	0.22
330000	330	0.33
470000	470	0.47
680000	680	0.68

**Dimensions**

Murata 0603 chip height H = 0.9mm max., all values.  
 See page 130 for all other dimensions.

0805

\* Supplied in larger quantity, 330mm dia. reels

overleaf > > > >

MURATA type GRM21 (0805)

0805

NPO (COG) dielectric

Value (pF)	Tolerance	Manf. Part No. & anglia Order Code
<b>50 Volt</b>		
0.5	0.25pF	GRM2165C1HR50CD01D
1.0	0.25pF	GRM2165C1H1R0CD01D
1.1	0.25pF	GRM2165C1H1R1CD01D
1.2	0.25pF	GRM2165C1H1R2CD01D
1.3	0.25pF	GRM2165C1H1R3CD01D
1.5	0.25pF	GRM2165C1H1R5CD01D
1.6	0.25pF	GRM2165C1H1R6CD01D
1.8	0.25pF	GRM2165C1H1R8CD01D
2.0	0.25pF	GRM2165C1H2R0CD01D
2.2	0.25pF	GRM2165C1H2R2CD01D
2.4	0.25pF	GRM2165C1H2R4CD01D
2.7	0.25pF	GRM2165C1H2R7CD01D
3.0	0.25pF	GRM2165C1H3R0CD01D
3.3	0.25pF	GRM2165C1H3R3CD01D
3.6	0.25pF	GRM2165C1H3R6CD01D
3.9	0.25pF	GRM2165C1H3R9CD01D
4.3	0.25pF	GRM2165C1H4R3CD01D
4.7	0.25pF	GRM2165C1H4R7CD01D
5.1	0.5pF	GRM2165C1H5R1DD01D
5.6	0.5pF	GRM2165C1H5R6DD01D
6.2	0.5pF	GRM2165C1H6R2DD01D
6.8	0.5pF	GRM2165C1H6R8DD01D
7.5	0.5pF	GRM2165C1H7R5DD01D
8.2	0.5pF	GRM2165C1H8R2DD01D
9.1	0.5pF	GRM2165C1H9R1DD01D
10	5%	GRM2165C1H100JZ01D
11	5%	GRM2165C1H110JZ01D
12	5%	GRM2165C1H120JZ01D
13	5%	GRM2165C1H130JZ01D
15	5%	GRM2165C1H150JZ01D
16	5%	GRM2165C1H160JZ01D
18	5%	GRM2165C1H180JZ01D
20	5%	GRM2165C1H200JZ01D
22	5%	GRM2165C1H220JZ01D
24	5%	GRM2165C1H240JZ01D
27	5%	GRM2165C1H270JZ01D
30	5%	GRM2165C1H300JZ01D
33	5%	GRM2165C1H330JZ01D
36	5%	GRM2165C1H360JZ01D
39	5%	GRM2165C1H390JZ01D
43	5%	GRM2165C1H430JZ01D
47	5%	GRM2165C1H470JZ01D
51	5%	GRM2165C1H510JZ01D
56	5%	GRM2165C1H560JZ01D
62	5%	GRM2165C1H620JZ01D
68	5%	GRM2165C1H680JD01D
75	5%	GRM2165C1H750JZ01D
82	5%	GRM2165C1H820JZ01D
91	5%	GRM2165C1H910JZ01D
100	5%	GRM2165C1H101JA01D
110	5%	GRM2165C1H111JD01D
120	5%	GRM2165C1H121JA01D
130	5%	GRM2165C1H131JZ01D
150	5%	GRM2165C1H151JA01D
160	5%	GRM2165C1H161JD51D
180	5%	GRM2165C1H181JA01D
200	5%	GRM2165C1H201JA01D
220	5%	GRM2165C1H221JA01D
240	5%	GRM2165C1H241JD01D
270	5%	GRM2165C1H271JA01D
300	5%	GRM2165C1H301JA01D
330	5%	GRM2165C1H331JA01D
360	5%	GRM2165C1H361JD01D
390	5%	GRM2165C1H391JA01D
430	5%	GRM2165C1H431JZ01D
470	5%	GRM2165C1H471JA01D
510	5%	GRM2165C1H511JA01D
560	5%	GRM2165C1H561JA01D
620	5%	GRM2195C1H621JA01D
680	5%	GRM2195C1H681JA01D
750	5%	GRM2195C1H751JA01D
820	5%	GRM2195C1H821JA01D
910	5%	GRM2195C1H911JA01D
1000	5%	GRM2195C1H102JA01D
1100	5%	GRM2195C1H112JA01D
1200	5%	GRM2195C1H122JA01D
1300	5%	GRM2195C1H132JA01D
1500	5%	GRM2195C1H152JA01D
1600	5%	GRM21B5C1H162JD01L
1800	5%	GRM21B5C1H182JD01L
2000	5%	GRM21B5C1H202JD01L
2200	5%	GRM2165C1H222JA01D
2400	5%	GRM21B5C1H242JD01L

NPO (COG) dielectric

Value (pF)	Tolerance	Manf. Part No. & anglia Order Code
<b>100 Volt</b>		
62	5%	GRM2195C2A620JD51D
68	5%	GRM2195C2A680JZ01D
75	5%	GRM2195C2A750JZ01D
82	5%	GRM2195C2A820JZ01D
91	5%	GRM2195C2A910JZ01D
100	5%	GRM2165C2A101JA01D
110	5%	GRM2195C2A111JZ01D
120	5%	GRM2195C2A121JZ01D
130	5%	GRM2195C2A131JZ01D
150	5%	GRM2195C2A151JZ01D
160	5%	GRM2195C2A161JZ01D
180	5%	GRM2195C2A181JZ01D
200	5%	GRM2195C2A201JZ01D
220	5%	GRM2195C2A221JZ01D
240	5%	GRM2195C2A241JZ01D
270	5%	GRM2165C2A271JA01D
300	5%	GRM2195C2A301JZ01D
330	5%	GRM2165C2A331JA01D
360	5%	GRM2195C2A361JZ01D
390	5%	GRM21B5C2A391JZ01L
430	5%	GRM21B5C2A431JZ01L
470	5%	GRM21B5C2A471JZ01L
510	5%	GRM21B5C2A511JD01L
560	5%	GRM2165C2A561JA01D
620	5%	GRM21B5C2A621JD01L
680	5%	GRM21B5C2A681JD01L

NPO (COG) dielectric

Value (pF)	Tolerance	Manf. Part No. & anglia Order Code
<b>200 Volt</b>		
1.0	0.25pF	GRM2195C2D1R0CY21D
1.1	0.25pF	GRM2195C2D1R1CY51D
1.2	0.25pF	GRM2195C2D1R2CY21D
1.3	0.25pF	GRM2195C2D1R3CY21D
1.5	0.25pF	GRM2195C2D1R5CY21D
1.6	0.25pF	GRM2195C2D1R6CY51D
1.8	0.25pF	GRM2195C2D1R8CY21D
2.0	0.25pF	GRM2195C2D2R0CY51D
2.2	0.25pF	GRM2195C2D2R2CY21D
2.4	0.25pF	GRM2195C2D2R4CY21D
2.7	0.25pF	GRM2195C2D2R7CY21D
3.0	0.25pF	GRM2195C2D3R0CY21D
3.3	0.25pF	GRM2195C2D3R3CY21D
3.6	0.25pF	GRM2195C2D3R6CY51D
3.9	0.25pF	GRM2195C2D3R9CY21D
4.3	0.25pF	GRM2195C2D4R3CY21D
4.7	0.25pF	GRM2195C2D4R7CY21D
5.1	0.5pF	GRM2195C2D5R1DY21D
5.6	0.5pF	GRM2195C2D5R6DY01D
6.2	0.5pF	GRM2195C2D6R2DY21D
6.8	0.5pF	GRM2195C2D6R8DY21D
7.5	0.5pF	GRM2195C2D7R5DY21D
8.2	0.5pF	GRM2195C2D8R2DV01D
9.1	0.5pF	GRM2195C2D9R1DY21D
10	5%	GRM2195C2D100JV01D
11	5%	GRM2195C2D110JV01D
12	5%	GRM2195C2D120JV01D
13	5%	GRM2195C2D130JV01D
15	5%	GRM2195C2D150JY21D
16	5%	GRM2195C2D160JY90D
18	5%	GRM2195C2D180JV01D
20	5%	GRM2195C2D200JY71D
22	5%	GRM2195C2D220JV01D
24	5%	GRM2195C2D240JY71D
27	5%	GRM2195C2D270JV01D
30	5%	GRM2195C2D300JY71D
33	5%	GRM2195C2D330JV01D
36	5%	GRM2195C2D360JY71D
39	5%	GRM2195C2D390JV01D
43	5%	GRM2195C2D430JY71D
47	5%	GRM2195C2D470JV01D
51	5%	GRM2195C2D510JY71D
56	5%	GRM2195C2D560JV01D
62	5%	GRM21B5C2D620JY71L
68	5%	GRM21B5C2D680JV01L
75	5%	GRM21B5C2D750JY71L
82	5%	GRM21B5C2D820JV01L
91	5%	GRM21B5C2D910JY71L
100	5%	GRM21B5C2D101JV01L
110	5%	GRM21B5C2D111JD01L
120	5%	GRM21B5C2D121JV01L
130	5%	GRM21B5C2D131JY71L
150	5%	GRM21B5C2D151JV01L
160	5%	GRM21B5C2D161JD01L
180	5%	GRM21B5C2D181JY21L
200	5%	GRM21B5C2D201JY21L
220	5%	GRM21B5C2D221JY21L

Dimensions

See page 130 for all other dimensions

Dielectric/Voltage	Murata 0805 Chip Height H max.		
	0.7mm	0.95mm	1.35mm
NPO			
50V	0.5pF - 560pF	620pF - 1500pF	1600pF - 2400pF
100V	-	62pF - 360pF	390pF - 680pF
200V	-	1.0pF - 56pF	62pF - 220pF

**MURATA type GRM21 (0805)**

**X7R dielectric : 10% tol.**

Value (pF)	Manf. Part No. & anglia Order Code
<b>50 Volt</b>	
330	GRM216R71H331KD01D
390	GRM216R71H391KD01D
470	GRM216R71H471KA01D
560	GRM216R71H561KA01D
680	GRM216R71H681KA01D
820	GRM216R71H821KA01D
1000	GRM216R71H102KA01D
1200	GRM216R71H122KA01D
1500	GRM216R71H152KA01D
1800	GRM216R71H182KA01D
2200	GRM216R71H222KA01D
2700	GRM216R71H272KA01D
3300	GRM216R71H332KA01D
3900	GRM216R71H392KA01D
4700	GRM216R71H472KA01D
5600	GRM216R71H562KA01D
6800	GRM216R71H682KA01D
8200	GRM216R71H822KA01D
(µF)	
0.01	GRM216R71H103KA01D
0.01*	GRM216R71H103KA01J
0.012	GRM216R71H123KA01D
0.015	GRM216R71H153KA01D
0.018	GRM216R71H183KA01D
0.022	GRM216R71H223KA01D
0.027	GRM219R71H273KA01D
0.033	GRM219R71H333KA01D
0.039	GRM219R71H393KA01D
0.047	GRM21BR71H473KA01L
0.056	GRM21BR71H563KD01L
0.068	GRM21BR71H683KA01L
0.1	GRM21BR71H104KA01L
0.1*	GRM21BR71H104KA01K
<b>25 Volt</b>	
0.047	GRM219R71E473KA01D
0.056	GRM21BR71E563KA01L
0.068	GRM219R71E683KA01D
0.082	GRM21BR71E823KA01L
0.1	GRM21BR71E104KA01L
0.1*	GRM21BR71E104KA01K
0.12	GRM21BR71E124KA01L
0.15	GRM21BR71E154KA01L
<b>16 Volt</b>	
0.18	GRM21BR71C184KA01L
0.22	GRM219R71C224KC01D
0.27	GRM219R71C274KC01D
0.33	GRM21BR71C334KA01L
0.39	GRM21BR71C394KA01L
0.47	GRM21BR71C474KA01L
1.0	GRM21BR71C105KA01L
<b>10 Volt</b>	
0.56	GRM219R71A564KC01D
0.68	GRM21BR71A684KC01L
0.82	GRM21BR71A824KC01L
1.0	GRM21BR71A105KA01L

**X7R dielectric : 10% tol.**

Value (pF)	Manf. Part No. & anglia Order Code
<b>100 Volt</b>	
2700	GRM219R72A272KD01D
3300	GRM219R72A332KA01D
3900	GRM219R72A392KD01D
4700	GRM219R72A472KA01D
5600	GRM219R72A562KD01D
6800	GRM219R72A682KD01D
8200	GRM21BR72A822KA01L
(µF)	
0.01	GRM21BR72A103KA01L
0.012	GRM21BR72A123KD01L
0.015	GRM21BR72A153KD01L
<b>X7R dielectric : 10% tol.</b>	
Value (pF)	Manf. Part No. & anglia Order Code
<b>200 Volt</b>	
220	GRM219R72D221KY21D
270	GRM219R72D271KY21D
330	GRM219R72D331KY21D
390	GRM219R72D391KD01D
470	GRM219R72D471KY21D
560	GRM219R72D561KY21D
680	GRM219R72D681KY21D
820	GRM219R72D821KY21D
1000	GRM219R72D102KY21D
1200	GRM219R72D122KY21D
1500	GRM219R72D152KY21D
1800	GRM219R72D182KY21D
2200	GRM21BR72D222KY21L
2700	GRM21BR72D272KY21L
3300	GRM21BR72D332KY21L
3900	GRM21BR72D392KY21L
4700	GRM21BR72D472KY21L
5600	GRM21BR72D562KY21L
6800	GRM21BR72D682KY21L
8200	GRM21BR72D822KY21L

**Z5U dielectric : 20% tol.**

Value (µF)	Manf. Part No. & anglia Order Code
<b>50 Volt</b>	
0.01	GRM216E41H103MA01D
0.015	GRM216E41H153MD01D
0.022	GRM216E41H223MA01D
0.033	GRM216E41H333MD01D
0.047	GRM216E41H473MA01D
0.068	GRM21BE41H683MD01L
0.1	GRM219E41H104MA01D
0.1*	GRM219E41H104MA01J

**Z5U dielectric : 20% tol.**

Value (µF)	Manf. Part No. & anglia Order Code
<b>100 Volt</b>	
0.01	GRM21BE42A103MD01L
0.015	GRM21BE42A153MD01L

**Y5V dielectric : -20,+80% tol.**

Value (µF)	Manf. Part No. & anglia Order Code
<b>50 Volt</b>	
0.01	GRM216F51H103ZA01D
0.015	GRM216F51H153ZD01D
0.022	GRM216F51H223ZA01D
0.033	GRM216F51H333ZA01D
0.047	GRM216F51H473ZA01D
0.068	GRM216F51H683ZA01D
0.1	GRM219F51H104ZA01D
0.1*	GRM219F51H104ZA01J
0.15	GRM219F51H154ZA01D
0.22	GRM21BF51H224ZA01L
<b>25 Volt</b>	
0.1	GRM216F51E104ZA01D
0.1*	GRM216F51E104ZA01J
0.15	GRM216F51E154ZA01D
0.22	GRM219F51E224ZA01D
0.33	GRM21BF51E334ZA01L
0.47	GRM21BF51E474ZA01L
1.0	GRM219F51E105ZA01D
<b>16 Volt</b>	
0.47	GRM21BF51C474ZA01L
0.68	GRM21BF51C684ZA01L
1.0	GRM21BF51C105ZA01L
2.2	GRM21BF51C225ZA01L

**Y5V dielectric : -20,+80% tol.**

Value (µF)	Manf. Part No. & anglia Order Code
<b>100 Volt</b>	
0.01	GRM21BF52A103ZD01L
0.015	GRM21BF52A153ZD01L
0.022	GRM21BF52A223ZD01L

**Dimensions**

See page 130 for all other dimensions

Dielectric/Voltage		Murata 0805 Chip Height H max.		
		0.7mm	0.95mm	1.35mm
X7R	10V	-	0.56µF	0.68µF - 1.0µF
	16V	-	0.22, 0.27, 0.47µF	0.18, 0.33, 0.39, 1.0µF
	25V	-	0.047µF, 0.068µF	0.056, 0.082 - 0.15µF
	50V	330pF - 0.022µF	0.027µF - 0.039µF	0.047µF - 0.1µF
	100V	-	2700pF - 6800pF	8200pF - 0.015µF
	200V	-	220pF - 1800pF	2200pF - 8200pF
Z5U	50V	0.01µF - 0.047µF	0.1µF	0.068µF
	100V	-	-	All Values
Y5V	16V	-	-	All Values
	25V	0.1µF, 0.15µF	0.22µF, 1.0µF	0.33µF, 0.47µF
	50V	0.01µF - 0.068µF	0.1µF, 0.15µF	0.22µF
	100V	-	-	All Values

\*Supplied in larger quantity, 330mm dia. reels

overleaf > > >





0805

**KEMET type C0805C (0805)**

**NEW**

**X7R dielectric : 10% tol.**

**X7R dielectric : 10% tol.**

**Z5U dielectric : 20% tol.**

Value (pF)	Manf. Part No. & anglia Order Code
<b>50 Volt *</b>	
220	C0805C221K5RAC
270	C0805C271K5RAC
330	C0805C331K5RAC
390	C0805C391K5RAC
470	C0805C471K5RAC
560	C0805C561K5RAC
680	C0805C681K5RAC
820	C0805C821K5RAC
1000	C0805C102K5RAC
1200	C0805C122K5RAC
1500	C0805C152K5RAC
1800	C0805C182K5RAC
2200	C0805C222K5RAC
2700	C0805C272K5RAC
3300	C0805C332K5RAC
3900	C0805C392K5RAC
4700	C0805C472K5RAC
5600	C0805C562K5RAC
6800	C0805C682K5RAC
8200	C0805C822K5RAC
(µF)	
0.01	C0805C103K5RAC
0.012	C0805C123K5RAC
0.015	C0805C153K5RAC
0.018	C0805C183K5RAC
0.022	C0805C223K5RAC
0.027	C0805C273K5RAC
0.033	C0805C333K5RAC
0.039	C0805C393K5RAC
0.047	C0805C473K5RAC
0.056	C0805C563K5RAC
0.068	C0805C683K5RAC
0.1	C0805C104K5RAC

Value (pF)	Manf. Part No. & anglia Order Code
<b>25 Volt</b>	
0.12	C0805C124K3RAC
0.15	C0805C154K3RAC
0.18	C0805C184K3RAC
0.22	C0805C224K3RAC
0.27	C0805C274K3RAC
0.33	C0805C334K3RAC
0.39	C0805C394K3RAC
0.47	C0805C474K3RAC

Value (pF)	Manf. Part No. & anglia Order Code
<b>16 Volt</b>	
0.56	C0805C564K4RAC
0.68	C0805C684K4RAC
0.82	C0805C824K4RAC
1.0	C0805C105K4RAC

Value (pF)	Manf. Part No. & anglia Order Code
<b>100 Volt</b>	
220	C0805C221K1RAC
270	C0805C271K1RAC
330	C0805C331K1RAC
390	C0805C391K1RAC
470	C0805C471K1RAC
560	C0805C561K1RAC
680	C0805C681K1RAC
820	C0805C821K1RAC
1000	C0805C102K1RAC
1200	C0805C122K1RAC
1500	C0805C152K1RAC
1800	C0805C182K1RAC
2200	C0805C222K1RAC
2700	C0805C272K1RAC
3300	C0805C332K1RAC
3900	C0805C392K1RAC
4700	C0805C472K1RAC
5600	C0805C562K1RAC
6800	C0805C682K1RAC
8200	C0805C822K1RAC
(µF)	
0.01	C0805C103K1RAC
0.012	C0805C123K1RAC
0.015	C0805C153K1RAC
0.018	C0805C183K1RAC
0.022	C0805C223K1RAC
0.027	C0805C273K1RAC
0.033	C0805C333K1RAC
0.039	C0805C393K1RAC
0.047	C0805C473K1RAC

Value (pF)	Manf. Part No. & anglia Order Code
<b>X7R dielectric : 10% tol.</b>	
<b>200 Volt</b>	
220	C0805C221K2RAC
270	C0805C271K2RAC
330	C0805C331K2RAC
390	C0805C391K2RAC
470	C0805C471K2RAC
560	C0805C561K2RAC
680	C0805C681K2RAC
820	C0805C821K2RAC
1000	C0805C102K2RAC
1200	C0805C122K2RAC
1500	C0805C152K2RAC
1800	C0805C182K2RAC
2200	C0805C222K2RAC
2700	C0805C272K2RAC
3300	C0805C332K2RAC
3900	C0805C392K2RAC
4700	C0805C472K2RAC
5600	C0805C562K2RAC
6800	C0805C682K2RAC

Value (pF)	Manf. Part No. & anglia Order Code
<b>50 Volt *</b>	
6800	C0805C682M5UAC
8200	C0805C822M5UAC
(µF)	
0.01	C0805C103M5UAC
0.015	C0805C153M5UAC
0.022	C0805C223M5UAC
0.033	C0805C333M5UAC
0.047	C0805C473M5UAC
0.068	C0805C683M5UAC
0.1	C0805C104M5UAC

Value (pF)	Manf. Part No. & anglia Order Code
<b>Z5U dielectric : 20% tol.</b>	
<b>100 Volt</b>	
6800	C0805C682M1UAC
8200	C0805C822M1UAC
(µF)	
0.01	C0805C103M1UAC

Value (µF)	Manf. Part No. & anglia Order Code
<b>Y5V dielectric : -20,+80% tol.</b>	
<b>50 Volt *</b>	
0.022	C0805C223Z5VAC
0.033	C0805C333Z5VAC
0.047	C0805C473Z5VAC
0.068	C0805C683Z5VAC
0.1	C0805C104Z5VAC

Value (µF)	Manf. Part No. & anglia Order Code
<b>25 Volt</b>	
0.22	C0805C224Z3VAC
0.33	C0805C334Z3VAC
0.47	C0805C474Z3VAC
0.68	C0805C684Z3VAC
1.0	C0805C105Z3VAC

Value (µF)	Manf. Part No. & anglia Order Code
<b>16 Volt</b>	
1.5	C0805C155Z4VAC
2.2	C0805C225Z4VAC

\* 50 Volt parts can be used in 63 Volt applications

**Dimensions**

See page 130 for all other dimensions

		KEMET 0805 Chip Height H max.			
Dielectric/Voltage		0.9mm	1.0mm	1.1mm	1.4mm
X7R	16V	-	-	-	0.56µF - 1.0µF
	25V	0.12µF - 0.22µF	0.27µF	0.33µF	0.39µF, 0.47µF
	50V	220pF - 0.027µF	0.033µF - 0.1µF	-	-
	100V	220pF - 0.012µF	0.015µF - 0.039µF	0.047µF	-
	200V	220pF - 6800pF	-	-	-
Z5U	50V	6800pF - 0.033µF	0.047µF - 0.1µF	-	-
	100V	6800pF - 0.01µF	-	-	-
Y5V	16V	-	-	-	1.5µF, 2.2µF
	25V	0.22µF - 0.47µF	-	0.68µF	1.0µF
	50V	0.022µF, 0.033µF	0.047µF - 0.1µF	-	-

**KEMET**

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Alternatively, contact our Sales Desk to discuss your specific requirements.

1206

overleaf > > >



**MURATA type GRM31 (1206)**

1206

**NPO (COG) dielectric**

Value (pF)	Tolerance	Manf. Part No. & anglia Order Code
<b>50 Volt</b>		
0.5	0.25pF	GRM3165C1HR50CD01D
1.0	0.25pF	GRM3165C1H1R0CD01D
1.1	0.25pF	GRM3165C1H1R1CD01D
1.2	0.25pF	GRM3165C1H1R2CD01D
1.3	0.25pF	GRM3165C1H1R3CD01D
1.5	0.25pF	GRM3165C1H1R5CD01D
1.6	0.25pF	GRM3165C1H1R6CD01D
1.8	0.25pF	GRM3165C1H1R8CD01D
2.0	0.25pF	GRM3165C1H2R0CD01D
2.2	0.25pF	GRM3165C1H2R2CD01D
2.4	0.25pF	GRM3165C1H2R4CD01D
2.7	0.25pF	GRM3165C1H2R7CD01D
3.0	0.25pF	GRM3165C1H3R0CD01D
3.3	0.25pF	GRM3165C1H3R3CD01D
3.6	0.25pF	GRM3165C1H3R6CD01D
3.9	0.25pF	GRM3165C1H3R9CD01D
4.3	0.25pF	GRM3165C1H4R3CD01D
4.7	0.25pF	GRM3165C1H4R7CD01D
5.1	0.5pF	GRM3165C1H5R1DD01D
5.6	0.5pF	GRM3165C1H5R6DD01D
6.2	0.5pF	GRM3165C1H6R2DD01D
6.8	0.5pF	GRM3165C1H6R8DD01D
7.5	0.5pF	GRM3165C1H7R5DD01D
8.2	0.5pF	GRM3165C1H8R2DD01D
9.1	0.5pF	GRM3165C1H9R1DD01D
10	5%	GRM3165C1H10JZ01D
11	5%	GRM3165C1H11JZ01D
12	5%	GRM3165C1H12JZ01D
13	5%	GRM3165C1H13JZ01D
15	5%	GRM3165C1H15JZ01D
16	5%	GRM3165C1H16JZ01D
18	5%	GRM3165C1H18JZ01D
20	5%	GRM3165C1H20JZ01D
22	5%	GRM3165C1H22JZ01D
24	5%	GRM3165C1H24JZ01D
27	5%	GRM3165C1H27JZ01D
30	5%	GRM3165C1H30JZ01D
33	5%	GRM3165C1H33JZ01D
36	5%	GRM3165C1H36JZ01D
39	5%	GRM3165C1H39JZ01D
43	5%	GRM3165C1H43JZ01D
47	5%	GRM3165C1H47JZ01D
51	5%	GRM3165C1H51JZ01D
56	5%	GRM3165C1H56JZ01D
62	5%	GRM3165C1H62JZ01D
68	5%	GRM3165C1H68JZ01D
75	5%	GRM3165C1H75JZ01D
82	5%	GRM3165C1H82JZ01D
100	5%	GRM3165C1H101JZ01D
110	5%	GRM3165C1H111JZ01D
120	5%	GRM3165C1H121JZ01D
130	5%	GRM3165C1H131JZ01D
150	5%	GRM3165C1H151JZ01D
160	5%	GRM3165C1H161JZ01D
180	5%	GRM3165C1H181JZ01D
200	5%	GRM3165C1H201JZ01D
220	5%	GRM3165C1H221JZ01D
240	5%	GRM3165C1H241JZ01D
270	5%	GRM3165C1H271JZ01D
300	5%	GRM3165C1H301JZ01D
330	5%	GRM3165C1H331JZ01D
360	5%	GRM3165C1H361JZ01D
390	5%	GRM3165C1H391JZ01D
430	5%	GRM3165C1H431JZ01D
470	5%	GRM3165C1H471JZ01D
510	5%	GRM3165C1H511JZ01D
560	5%	GRM3165C1H561JZ01D
620	5%	GRM3165C1H621JZ01D
680	5%	GRM3165C1H681JZ01D
750	5%	GRM3165C1H751JZ01D
820	5%	GRM3195C1H821JZ01D
910	5%	GRM3195C1H911JZ01D
1000	5%	GRM3195C1H102JA01D
1100	5%	GRM3195C1H112JA01D
1200	5%	GRM3195C1H122JA01D
1300	5%	GRM3195C1H132JA01D
1500	5%	GRM3195C1H152JA01D
1600	5%	GRM3195C1H162JA01D
1800	5%	GRM3195C1H182JA01D
2000	5%	GRM3195C1H202JA01D
2200	5%	GRM3195C1H222JA01D

**NPO (COG) dielectric**

Value (pF)	Tolerance	Manf. Part No. & anglia Order Code
<b>50 Volt</b> (continued)		
2400	5%	GRM3195C1H242JD01D
2700	5%	GRM3195C1H272JD01D
3000	5%	GRM3195C1H302JD01D
3300	5%	GRM3195C1H332JA01D
3600	5%	GRM3195C1H362JD01D
3900	5%	GRM31M5C1H392JD01L
4300	5%	GRM31M5C1H432JD01L
4700	5%	GRM3195C1H472JA01D
5100	5%	GRM31M5C1H512JD01L
5600	5%	GRM31M5C1H562JD01L
6200	5%	GRM31M5C1H622JD01L

**NPO (COG) dielectric**

Value (pF)	Tolerance	Manf. Part No. & anglia Order Code
<b>100 Volt</b>		
750	5%	GRM3195C2A751JZ01D
820	5%	GRM31M5C2A821JZ01L
910	5%	GRM31M5C2A911JZ01L
1000	5%	GRM31M5C2A102JZ01L
1100	5%	GRM31M5C2A112JZ01L
1200	5%	GRM31M5C2A122JD01L
1300	5%	GRM31M5C2A132JD01L
1500	5%	GRM31M5C2A152JD01L
1600	5%	GRM31M5C2A162JD01L
1800	5%	GRM31M5C2A182JD01L
2000	5%	GRM31M5C2A202JD01L
2200	5%	GRM31M5C2A222JD01L

**NPO (COG) dielectric**

Value (pF)	Tolerance	Manf. Part No. & anglia Order Code
<b>200 Volt</b>		
240	5%	GRM31M5C2D241JV01L
270	5%	GRM31M5C2D271JV01L
300	5%	GRM31M5C2D301JV01L
330	5%	GRM31M5C2D331JY21L
360	5%	GRM31M5C2D361JY21L
390	5%	GRM31M5C2D391JY21L
430	5%	GRM31M5C2D431JY21L
470	5%	GRM31M5C2D471JY21L

**Dimensions**

See page 130 for all other dimensions

Dielectric/Voltage	Murata 1206 Chip Height H max.		
	0.7mm	0.95mm	1.25mm
NPO			
50V	0.5pF - 750pF	820pF - 3600pF	3900pF - 6200pF
100V	-	750pF	820pF - 2200pF
200V	-	-	All Values
500V	-	-	All Values

**NPO (COG) dielectric**

Value (pF)	Tolerance	Manf. Part No. & anglia Order Code
<b>500 Volt</b>		
1.0	0.25pF	GRM31M5C2H1R0CY21L
1.1	0.25pF	GRM31M5C2H1R1CY21L
1.2	0.25pF	GRM31M5C2H1R2CY21L
1.3	0.25pF	GRM31M5C2H1R3CY21L
1.5	0.25pF	GRM31M5C2H1R5CY21L
1.6	0.25pF	GRM31M5C2H1R6CY21L
1.8	0.25pF	GRM31M5C2H1R8CY21L
2.0	0.25pF	GRM31M5C2H2R0CY21L
2.2	0.25pF	GRM31M5C2H2R2CY21L
2.4	0.25pF	GRM31M5C2H2R4CY21L
2.7	0.25pF	GRM31M5C2H2R7CY21L
3.0	0.25pF	GRM31M5C2H3R0CY21L
3.3	0.25pF	GRM31M5C2H3R3CY21L
3.6	0.25pF	GRM31M5C2H3R6CY21L
3.9	0.25pF	GRM31M5C2H3R9CY21L
4.3	0.25pF	GRM31M5C2H4R3CY21L
4.7	0.25pF	GRM31M5C2H4R7CY21L
5.1	0.5pF	GRM31M5C2H5R1DY21L
5.6	0.5pF	GRM31M5C2H5R6DY21L
6.2	0.5pF	GRM31M5C2H6R2DV01L
6.8	0.5pF	GRM31M5C2H6R8DV01L
7.5	0.5pF	GRM31M5C2H7R5DV01L
8.2	0.5pF	GRM31M5C2H8R2DV01L
9.1	0.5pF	GRM31M5C2H9R1DV01L
10	5%	GRM31M5C2H100JV01L
11	5%	GRM31M5C2H110JV01L
12	5%	GRM31M5C2H120JV01L
13	5%	GRM31M5C2H130JV01L
15	5%	GRM31M5C2H150JV01L
16	5%	GRM31M5C2H160JV01L
18	5%	GRM31M5C2H180JV01L
20	5%	GRM31M5C2H200JV01L
22	5%	GRM31M5C2H220JV01L
24	5%	GRM31M5C2H240JV01L
27	5%	GRM31M5C2H270JV01L
30	5%	GRM31M5C2H300JV01L
33	5%	GRM31M5C2H330JV01L
36	5%	GRM31M5C2H360JV01L
39	5%	GRM31M5C2H390JV01L
43	5%	GRM31M5C2H430JV01L
47	5%	GRM31M5C2H470JV01L
51	5%	GRM31M5C2H510JV01L
56	5%	GRM31M5C2H560JV01L
62	5%	GRM31M5C2H620JV01L
68	5%	GRM31M5C2H680JV01L
75	5%	GRM31M5C2H750JV01L
82	5%	GRM31M5C2H820JV01L
100	5%	GRM31M5C2H101JV01L
110	5%	GRM31M5C2H111JV01L
120	5%	GRM31M5C2H121JV01L

**MURATA type GRM31 (1206)**

1206

**X7R dielectric : 10% tol.**

Value (pF)

**50 Volt**

220  
270  
330  
390  
470  
560  
680  
820  
1000  
1200  
1500  
1800  
2200  
2700  
3300  
3900  
4700  
5600  
6800  
8200

Manf. Part No. & anglia Order Code

GRM316R71H221KD01D  
GRM316R71H271KD01D  
GRM316R71H331KD01D  
GRM316R71H391KD01D  
GRM316R71H471KD01D  
GRM316R71H561KD01D  
GRM316R71H681KD01D  
GRM316R71H821KD01D  
GRM316R71H102KD01D  
GRM316R71H122KD01D  
GRM316R71H152KD01D  
GRM316R71H182KD01D  
GRM316R71H222KD01D  
GRM316R71H272KD01D  
GRM316R71H332KD01D  
GRM316R71H392KA01D  
GRM316R71H472KD01D  
GRM316R71H562KD01D  
GRM316R71H682KD01D  
GRM316R71H822KD01D

(µF)  
0.01  
0.01\*  
0.012  
0.015  
0.018  
0.022  
0.027  
0.033  
0.039  
0.047  
0.056  
0.068  
0.082  
0.1  
0.1\*  
0.12  
0.15  
0.22

GRM319R71H103KA01D  
GRM316R71H103KD01J  
GRM316R71H123KD01D  
GRM316R71H153KD01D  
GRM319R71H183KD01D  
GRM319R71H223KA01D  
GRM319R71H273KD01D  
GRM319R71H333KA01D  
GRM319R71H393KD01D  
GRM319R71H473KD01D  
GRM319R71H563KD01D  
GRM319R71H683KA01D  
GRM319R71H823KD01D  
GRM319R71H104KA01D  
GRM319R71H104KA01J  
GRM31MR71H124KA01L  
GRM31MR71H154KA01L  
GRM319R71H224KA01D

**25 Volt**

0.18  
0.22  
0.27  
0.33  
0.47

GRM31MR71E184KD01L  
GRM31MR71E224KA01L  
GRM31MR71E274KD01L  
GRM31MR71E334KD01L  
GRM319R71E474KC01D

**16 Volt**

1.0  
2.2

GRM31MR71C105KA01L  
GRM31MR71C225KA35L

**X7R dielectric : 10% tol.**

Value (µF)

**100 Volt**

0.027  
0.033  
0.039

Manf. Part No. & anglia Order Code

GRM31MR72A273KD01L  
GRM31MR72A333KA01L  
GRM31MR72A393KD01L

**X7R dielectric : 10% tol.**

Value (µF)

**200 Volt**

0.01  
0.012  
0.015  
0.018  
0.022

Manf. Part No. & anglia Order Code

GRM31MR72D103KY21L  
GRM31MR72D123KY21L  
GRM31MR72D153KY21L  
GRM31MR72D183KY21L  
GRM31MR72D223KY21L

**X7R dielectric : 10% tol.**

Value (pF)

**500 Volt**

220  
270  
330  
390  
470  
560  
680  
820  
1000  
1200  
1500  
1800  
2200  
2700

Manf. Part No. & anglia Order Code

GRM31MR72H221KY21L  
GRM31MR72H271KY21L  
GRM31MR72H331KY21L  
GRM31MR72H391KY21L  
GRM31MR72H471KY21L  
GRM31MR72H561KY21L  
GRM31MR72H681KY21L  
GRM31MR72H821KY21L  
GRM31MR72H102KY21L  
GRM31MR72H122KY21L  
GRM31MR72H152KY21L  
GRM31MR72H182KY21L  
GRM31MR72H222KY21L  
GRM31MR72H272KY21L

**Z5U dielectric : 20% tol.**

Value (µF)

**50 Volt**

0.15  
0.22

Manf. Part No. & anglia Order Code

GRM31ME41H154MD01L  
GRM319E41H224MA01D

**Z5U dielectric : 20% tol.**

Value (µF)

**100 Volt**

0.022  
0.033

Manf. Part No. & anglia Order Code

GRM319E42A223MD01D  
GRM31ME42A333MD01L

**Y5V dielectric : -20,+80% tol.**

Value (µF)

**50 Volt**

0.01  
0.022  
0.033  
0.047  
0.1  
0.1\*  
0.15  
0.22  
0.33  
0.47

Manf. Part No. & anglia Order Code

GRM316F51H103ZD01D  
GRM316F51H223ZD01D  
GRM316F51H333ZD01D  
GRM316F51H473ZD01D  
GRM319F51H104ZA01D  
GRM319F51H104ZA01J  
GRM319F51H154ZA01D  
GRM319F51H224ZA01D  
GRM319F51H334ZA01D  
GRM31MF51H474ZA01L

**25 Volt**

0.47  
1.0  
2.2

GRM319F51E474ZA01D  
GRM31MF51E105ZA01L  
GRM31MF51E225ZA12L

**16 Volt**

3.3  
4.7

GRM31MF51C335ZA01L  
GRM31MF51C475ZA01L

**Y5V dielectric : -20,+80% tol.**

Value (µF)

**100 Volt**

0.033  
0.047

Manf. Part No. & anglia Order Code

GRM31MF52A333ZD01L  
GRM31MF52A473ZD01L

**Dimensions**

See page 130 for all other dimensions

Murata 1206 Chip Height H max.				
Dielectric/Voltage	0.7mm	0.95mm	1.25mm	
X7R	16V	-	-	
	25V	-	0.47µF	
	50V	220pF - 0.015µF	0.018 - 0.1, 0.22µF	All Values 0.18µF - 0.33µF
	100V	-	-	0.12µF, 0.15µF
	200V	-	-	All Values
	500V	-	-	All Values
Z5U	50V	-	0.22µF	
	100V	-	0.022µF	
				0.15µF 0.033µF
Y5V	16V	-	-	
	25V	-	0.47µF	
	50V	0.01µF - 0.047µF	0.1µF - 0.33µF	All Values 1.0µF, 2.2µF
	100V	-	-	0.47µF All Values



1206

\* Supplied in larger quantity, 330mm dia. reels.

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**KEMET type C1206C (1206)**

**NEW**

1206

**X7R dielectric : 10% tol.**

**X7R dielectric : 10% tol.**

**Z5U dielectric : 20% tol.**

Value (pF)	Manf. Part No. & anglia Order Code
<b>50 Volt *</b>	
1000	C1206C102K5RAC
1200	C1206C122K5RAC
1500	C1206C152K5RAC
1800	C1206C182K5RAC
2200	C1206C222K5RAC
2700	C1206C272K5RAC
3300	C1206C332K5RAC
3900	C1206C392K5RAC
4700	C1206C472K5RAC
5600	C1206C562K5RAC
6800	C1206C682K5RAC
8200	C1206C822K5RAC
<b>(µF)</b>	
0.01	C1206C103K5RAC
0.012	C1206C123K5RAC
0.015	C1206C153K5RAC
0.018	C1206C183K5RAC
0.022	C1206C223K5RAC
0.027	C1206C273K5RAC
0.033	C1206C333K5RAC
0.039	C1206C393K5RAC
0.047	C1206C473K5RAC
0.056	C1206C563K5RAC
0.068	C1206C683K5RAC
0.082	C1206C823K5RAC
0.1	C1206C104K5RAC
0.12	C1206C124K5RAC
0.15	C1206C154K5RAC
0.18	C1206C184K5RAC
0.22	C1206C224K5RAC

Value (pF)	Manf. Part No. & anglia Order Code
<b>100 Volt</b>	
1000	C1206C102K1RAC
1200	C1206C122K1RAC
1500	C1206C152K1RAC
1800	C1206C182K1RAC
2200	C1206C222K1RAC
2700	C1206C272K1RAC
3300	C1206C332K1RAC
3900	C1206C392K1RAC
4700	C1206C472K1RAC
5600	C1206C562K1RAC
6800	C1206C682K1RAC
8200	C1206C822K1RAC
<b>(µF)</b>	
0.01	C1206C103K1RAC
0.012	C1206C123K1RAC
0.015	C1206C153K1RAC
0.018	C1206C183K1RAC
0.022	C1206C223K1RAC
0.027	C1206C273K1RAC
0.033	C1206C333K1RAC
0.039	C1206C393K1RAC
0.047	C1206C473K1RAC
0.056	C1206C563K1RAC
0.068	C1206C683K1RAC
0.082	C1206C823K1RAC
0.1	C1206C104K1RAC
0.12	C1206C124K1RAC
0.15	C1206C154K1RAC
0.18	C1206C184K1RAC
0.22	C1206C224K1RAC

Value (µF)	Manf. Part No. & anglia Order Code
<b>50 Volt *</b>	
0.01	C1206C103M5UAC
0.015	C1206C153M5UAC
0.022	C1206C223M5UAC
0.033	C1206C333M5UAC
0.047	C1206C473M5UAC
0.068	C1206C683M5UAC
0.1	C1206C104M5UAC
0.15	C1206C154M5UAC
0.22	C1206C224M5UAC

**Z5U dielectric : 20% tol.**

Value (µF)	Manf. Part No. & anglia Order Code
<b>100 Volt</b>	
0.01	C1206C103M1UAC
0.015	C1206C153M1UAC
0.022	C1206C223M1UAC
0.033	C1206C333M1UAC
0.047	C1206C473M1UAC
0.068	C1206C683M1UAC
0.1	C1206C104M1UAC

**Y5V dielectric : -20,+80% tol.**

Value (µF)	Manf. Part No. & anglia Order Code
<b>50 Volt *</b>	
0.022	C1206C223Z5VAC
0.033	C1206C333Z5VAC
0.047	C1206C473Z5VAC
0.068	C1206C683Z5VAC
0.1	C1206C104Z5VAC
<b>25 Volt</b>	
0.47	C1206C474Z3VAC
0.68	C1206C684Z3VAC
1.0	C1206C105Z3VAC
<b>16 Volt</b>	
1.5	C1206C155Z4VAC
2.2	C1206C225Z4VAC
3.3	C1206C335Z4VAC
4.7	C1206C475Z4VAC
<b>10 Volt</b>	
6.8	C1206C685Z8VAC
10	C1206C106Z8VAC

**25 Volt**

0.27	C1206C274K3RAC
0.33	C1206C334K3RAC
0.39	C1206C394K3RAC
0.47	C1206C474K3RAC
0.56	C1206C564K3RAC
0.68	C1206C684K3RAC
0.82	C1206C824K3RAC
1.0	C1206C105K3RAC

**X7R dielectric : 10% tol.**

Value (pF)	Manf. Part No. & anglia Order Code
<b>200 Volt</b>	
1000	C1206C102K2RAC
1200	C1206C122K2RAC
1500	C1206C152K2RAC
1800	C1206C182K2RAC
2200	C1206C222K2RAC
2700	C1206C272K2RAC
3300	C1206C332K2RAC
3900	C1206C392K2RAC
4700	C1206C472K2RAC
5600	C1206C562K2RAC
6800	C1206C682K2RAC
8200	C1206C822K2RAC
<b>(µF)</b>	
0.01	C1206C103K2RAC
0.012	C1206C123K2RAC
0.015	C1206C153K2RAC
0.018	C1206C183K2RAC
0.022	C1206C223K2RAC

**16 Volt**

1.2	C1206C125K4RAC
1.5	C1206C155K4RAC
1.8	C1206C185K4RAC
2.2	C1206C225K4RAC

**Dimensions**

\* 50 Volt parts can be used in 63 Volt applications

Dielectric/Voltage	KEMET 1206 Chip Height H max.						
	0.9mm	1.0mm	1.1mm	1.2mm	1.35mm	1.75mm	1.9mm
X7R 16V 25V 50V 100V 200V	-	-	1.2µF, 1.5µF	1.8µF	-	2.2µF	-
	0.27µF - 0.39µF	0.47µF	0.56µF	0.68µF	0.82µF	1.0µF	-
	1000pF - 0.1µF	0.12µF - 0.22µF	-	-	-	-	-
	1000pF - 0.033µF, 0.056µF - 0.1µF	0.039µF, 0.047, 0.12µF - 0.22µF	-	-	-	-	-
	All Values	-	-	-	-	-	-
Z5U 50V 100V	0.01µF - 0.1µF	0.15µF, 0.22µF	-	-	-	-	-
	0.01µF - 0.033µF, 0.068µF, 0.1µF	0.047µF	-	-	-	-	-
Y5V 10V 16V 25V 50V	-	-	-	-	-	-	All Values
	-	1.5µF	2.2µF	-	3.3µF	-	4.7µF
	0.68µF, 1.0µF	0.47µF	-	-	-	-	-
	All Values	-	-	-	-	-	-

See page 130 for all other dimensions