



## MULTILAYER CERAMIC CHIP CAPACITORS



### **C Series Commercial Grade Mid Voltage (100 to 630V)**

**Type:**

**C1005 [EIA CC0402]  
C1608 [EIA CC0603]  
C2012 [EIA CC0805]  
C3216 [EIA CC1206]  
C3225 [EIA CC1210]  
C4532 [EIA CC1812]  
C5750 [EIA CC2220]**

**Issue date:  
May 2014**



## REMINDERS

Please read before using this product

### SAFETY REMINDERS



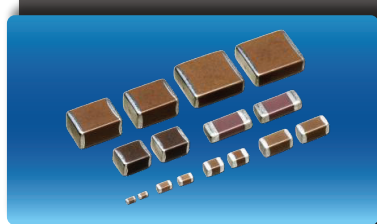
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(Example)

| Catalog Issued date    | Catalog Number      | Item Description (On Delivery Label) |
|------------------------|---------------------|--------------------------------------|
| Prior to January 2013  | C1608C0G1E103J      | C1608C0G1E103JT000N                  |
| January 2013 and Later | C1608C0G1E103J080AA | C1608C0G1E103JT000N                  |



## C Series Mid Voltage (100 to 630V)

Type: C1005 [EIA CC0402], C1608 [EIA CC0603], C2012 [EIA CC0805], C3216 [EIA CC1206], C3225 [EIA CC1210], C4532 [EIA CC1812], C5750 [EIA CC2220]



### Features



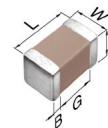
- Voltage rating of 100V to 630V with capacitance range up to 15 $\mu$ F.
- High capacitance has been achieved through precision technologies that enable the use of multiple thinner ceramic dielectric layers.
- Low residual inductance assures superior frequency characteristics.
- Excellent DC Bias properties.
- A lineup with wide-ranging rated voltages that enables selections that are suitable for needs.

### Applications



- Snubber in power supply
- Electric flash circuits in digital still camera
- Power factor improvement
- Input-output filter in power supply
- Driver circuit in plasma display
- Noise bypass

### Shape & Dimensions



|   |                  |
|---|------------------|
| L | Body Length      |
| W | Body Width       |
| T | Body Height      |
| B | Terminal Width   |
| G | Terminal Spacing |



Catalog Number  
Construction

C • 3225 • X7R • 2A • 105 • K • 200 • A • A

Series Name

Dimensions L x W (mm)

| Code  | Length          | Width           | Terminal  |
|-------|-----------------|-----------------|-----------|
| C1005 | 1.00 $\pm$ 0.05 | 0.50 $\pm$ 0.05 | 0.10 min. |
| C1608 | 1.60 $\pm$ 0.10 | 0.80 $\pm$ 0.10 | 0.20 min. |
| C2012 | 2.00 $\pm$ 0.20 | 1.25 $\pm$ 0.20 | 0.20 min. |
| C3216 | 3.20 $\pm$ 0.20 | 1.60 $\pm$ 0.20 | 0.20 min. |
| C3225 | 3.20 $\pm$ 0.40 | 2.50 $\pm$ 0.30 | 0.20 min. |
| C4532 | 4.50 $\pm$ 0.40 | 3.20 $\pm$ 0.40 | 0.20 min. |
| C5750 | 5.70 $\pm$ 0.40 | 5.00 $\pm$ 0.40 | 0.20 min. |

\*Dimension tolerance are typical values

### Temperature Characteristics

| Temperature Characteristics | Temperature Coefficient or Capacitance Change | Temperature Range        |
|-----------------------------|-----------------------------------------------|--------------------------|
| CH                          | 0 $\pm$ 60 ppm/ $^{\circ}$ C                  | -25 to +85 $^{\circ}$ C  |
| C0G                         | 0 $\pm$ 30 ppm/ $^{\circ}$ C                  | -55 to +125 $^{\circ}$ C |
| JB                          | $\pm$ 10%                                     | -25 to +85 $^{\circ}$ C  |
| X5R                         | $\pm$ 15%                                     | -55 to +85 $^{\circ}$ C  |
| X6S                         | $\pm$ 22%                                     | -55 to +105 $^{\circ}$ C |
| X7R                         | $\pm$ 15%                                     | -55 to +125 $^{\circ}$ C |
| X7S                         | $\pm$ 22%                                     | -55 to +125 $^{\circ}$ C |
| X7T                         | +22/-33%                                      | -55 to +125 $^{\circ}$ C |

### Rated Voltage (DC)

| Code | Voltage (DC) |
|------|--------------|
| 2A   | 100V         |
| 2E   | 250V         |
| 2V   | 350V         |
| 2W   | 450V         |
| 2J   | 630V         |

### Nominal Capacitance (pF)

The capacitance is expressed in three digit codes and in units of pico Farads (pF). The first and second digits identify the first and second significant figures of the capacitance. The third digit identifies the multiplier. R designates a decimal point. Ex. 0R2 = 0.2pF; 103 = 10,000pF; 105 = 1,000,000pF = 100nF

### Capacitance Tolerance

| Code | Tolerance    |
|------|--------------|
| C    | $\pm$ 0.25pF |
| D    | $\pm$ 0.50pF |
| F    | $\pm$ 1%     |
| G    | $\pm$ 2%     |
| J    | $\pm$ 5%     |
| K    | $\pm$ 10%    |
| M    | $\pm$ 20%    |

### Nominal Thickness

| Code | Thickness | Code | Thickness |
|------|-----------|------|-----------|
| 050  | 0.50 mm   | 130  | 1.30 mm   |
| 060  | 0.60 mm   | 160  | 1.60 mm   |
| 080  | 0.80 mm   | 200  | 2.00 mm   |
| 085  | 0.85 mm   | 230  | 2.30 mm   |
| 115  | 1.15 mm   | 250  | 2.50 mm   |
| 125  | 1.25 mm   | 280  | 2.80 mm   |
|      |           | 320  | 3.20 mm   |

### Packaging Style

| Code | Style                |
|------|----------------------|
| A    | 178" Reel, 4mm Pitch |
| B    | 178" Reel, 2mm Pitch |
| K    | 178" Reel, 8mm Pitch |

### Special Reserved Code

| Code    | Description       |
|---------|-------------------|
| A, B, C | TDK Internal Code |



## Capacitance Range Chart

## EIA CC0402 [C1005]

### Capacitance Range Chart

Temperature Characteristics: C0G (0 ± 30ppm/°C), CH (0 ± 60ppm/°C), X7S  
 Rated Voltage: 100V (2A)

| Capacitance (pF) | Code | Tolerance                       | C0G<br>2A<br>(100V) | CH<br>2A<br>(100V) | X7S<br>2A<br>(100V) |
|------------------|------|---------------------------------|---------------------|--------------------|---------------------|
| 100              | 101  | J: ± 5%<br>K: ± 10%<br>M: ± 20% |                     |                    |                     |
| 120              | 121  |                                 |                     |                    |                     |
| 150              | 151  |                                 |                     |                    |                     |
| 180              | 181  |                                 |                     |                    |                     |
| 220              | 221  |                                 |                     |                    |                     |
| 270              | 271  |                                 |                     |                    |                     |
| 330              | 331  |                                 |                     |                    |                     |
| 390              | 391  |                                 |                     |                    |                     |
| 470              | 471  |                                 |                     |                    |                     |
| 1,000            | 102  |                                 |                     |                    |                     |
| 1,500            | 152  |                                 |                     |                    |                     |
| 2,200            | 222  |                                 |                     |                    |                     |
| 3,300            | 332  |                                 |                     |                    |                     |
| 4,700            | 472  |                                 |                     |                    |                     |
| 6,800            | 682  |                                 |                     |                    |                     |
| 10,000           | 103  |                                 |                     |                    |                     |

Standard Thickness

 0.50 mm



## Capacitance Range Chart

## EIA CC0603 [C1608]

### Capacitance Range Chart

Temperature Characteristics: C0G ( $0 \pm 30\text{ppm}/^\circ\text{C}$ ), CH ( $0 \pm 60\text{ppm}/^\circ\text{C}$ ), JB ( $\pm 10\%$ ), X5R ( $\pm 15\%$ ), X7R ( $\pm 15\%$ ), X7S ( $\pm 22\%$ )  
 Rated Voltage: 250V (2E), 100V (2A)

| Capacitance<br>(pF) | Code | Tolerance                                                                                                                                 | C0G          |              | CH           |              | JB           | X5R          | X7R          | X7S          |
|---------------------|------|-------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                     |      |                                                                                                                                           | 2E<br>(250V) | 2A<br>(100V) | 2E<br>(250V) | 2A<br>(100V) | 2A<br>(100V) | 2A<br>(100V) | 2A<br>(100V) | 2A<br>(100V) |
| 1                   | 010  | C : $\pm 0.25\text{pF}$<br>D : $\pm 0.50\text{pF}$<br>F : $\pm 1\%$<br>G : $\pm 2\%$<br>J : $\pm 5\%$<br>K : $\pm 10\%$<br>M : $\pm 20\%$ |              |              |              |              |              |              |              |              |
| 1.5                 | 1R5  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 2                   | 020  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 2.2                 | 2R2  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 3                   | 030  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 3.3                 | 3R3  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 4                   | 040  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 4.7                 | 4R7  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 5                   | 050  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 6                   | 060  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 6.8                 | 6R8  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 7                   | 070  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 8                   | 080  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 9                   | 090  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 10                  | 100  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 12                  | 120  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 15                  | 150  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 18                  | 180  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 22                  | 220  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 27                  | 270  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 33                  | 330  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 39                  | 390  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 47                  | 470  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 56                  | 560  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 68                  | 680  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 82                  | 820  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 100                 | 101  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 120                 | 121  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 150                 | 151  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 180                 | 181  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 220                 | 221  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 270                 | 271  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 330                 | 331  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 390                 | 391  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 470                 | 471  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 560                 | 561  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 680                 | 681  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 820                 | 821  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 1,000               | 102  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 1,200               | 122  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 1,500               | 152  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 1,800               | 182  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 2,200               | 222  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 2,700               | 272  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 3,300               | 332  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 4,700               | 472  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 6,800               | 682  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 10,000              | 103  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 15,000              | 153  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 22,000              | 223  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 33,000              | 333  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 47,000              | 473  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 68,000              | 683  |                                                                                                                                           |              |              |              |              |              |              |              |              |
| 100,000             | 104  |                                                                                                                                           |              |              |              |              |              |              |              |              |

Standard Thickness  
 0.80 mm

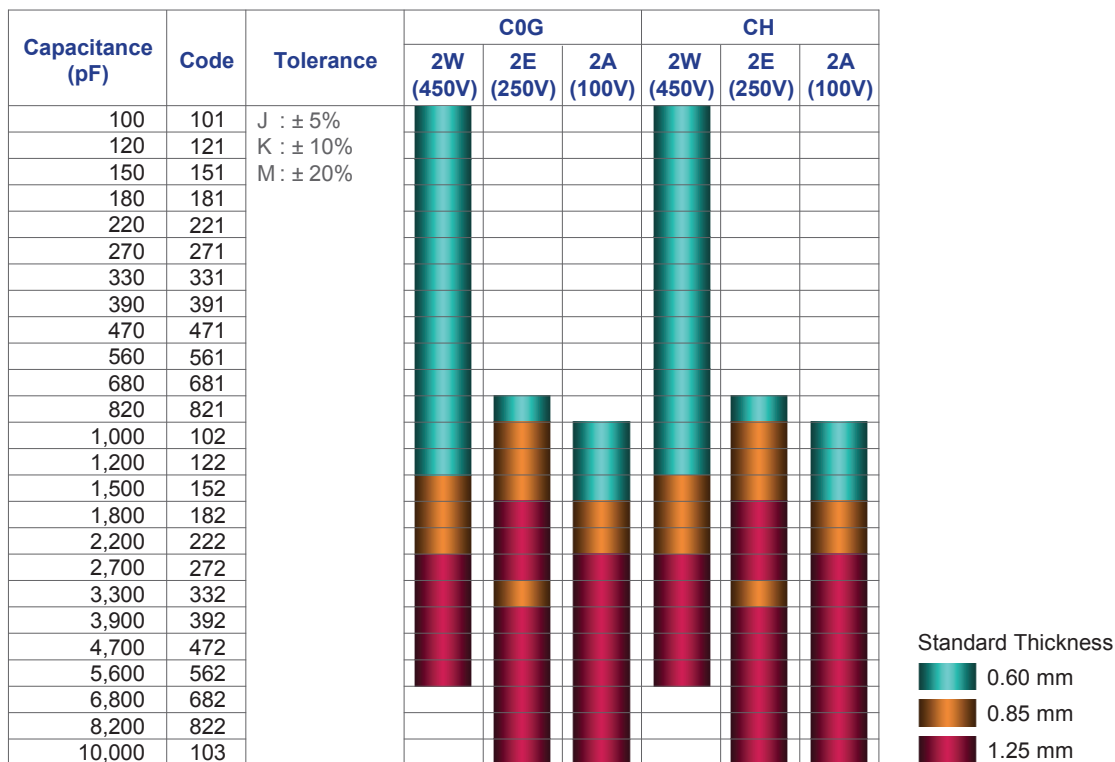


## Capacitance Range Chart

## EIA CC0805 [C2012]

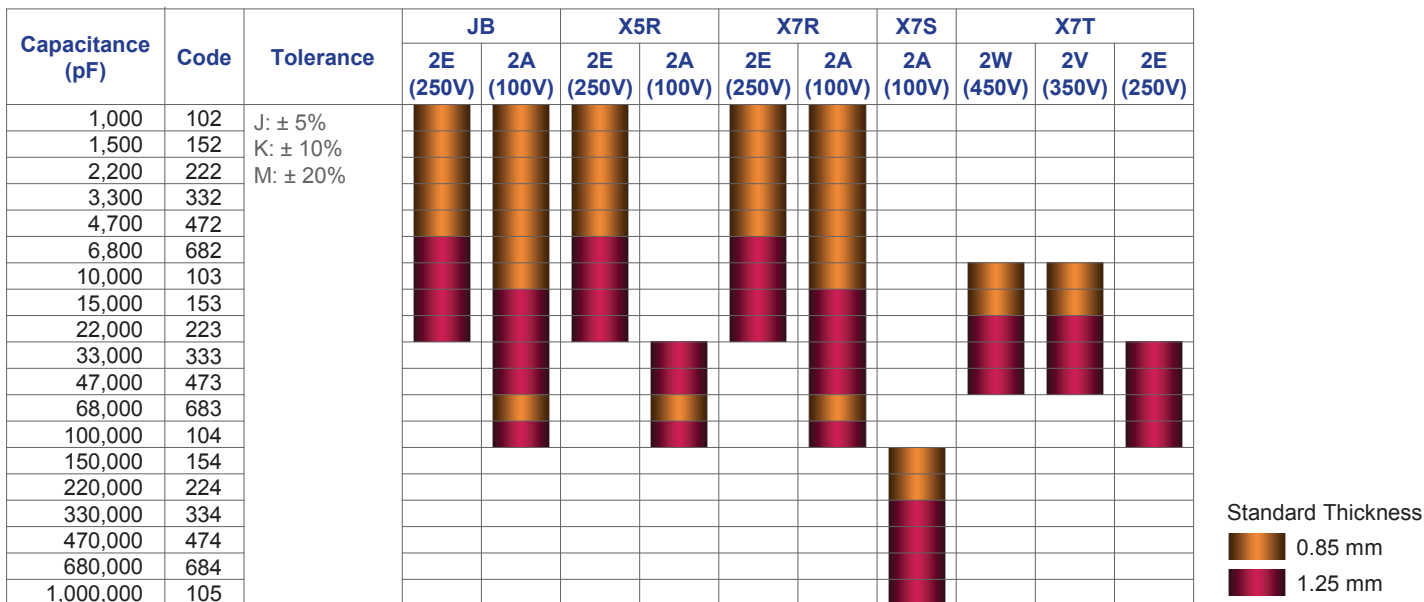
### Capacitance Range Chart

Temperature Characteristics: C0G ( $0 \pm 30\text{ppm}/^\circ\text{C}$ ), CH ( $0 \pm 60\text{ppm}/^\circ\text{C}$ )  
 Rated Voltage: 450V (2W), 250V (2E), 100V (2A)



### Capacitance Range Chart

Temperature Characteristics: JB ( $\pm 10\%$ ), X5R ( $\pm 15\%$ ), X7R ( $\pm 15\%$ ), X7S ( $\pm 22\%$ ), X7T ( $+22/-33\%$ )  
 Rated Voltage: 450V (2W), 350V (2V), 250V (2E), 100V (2A)





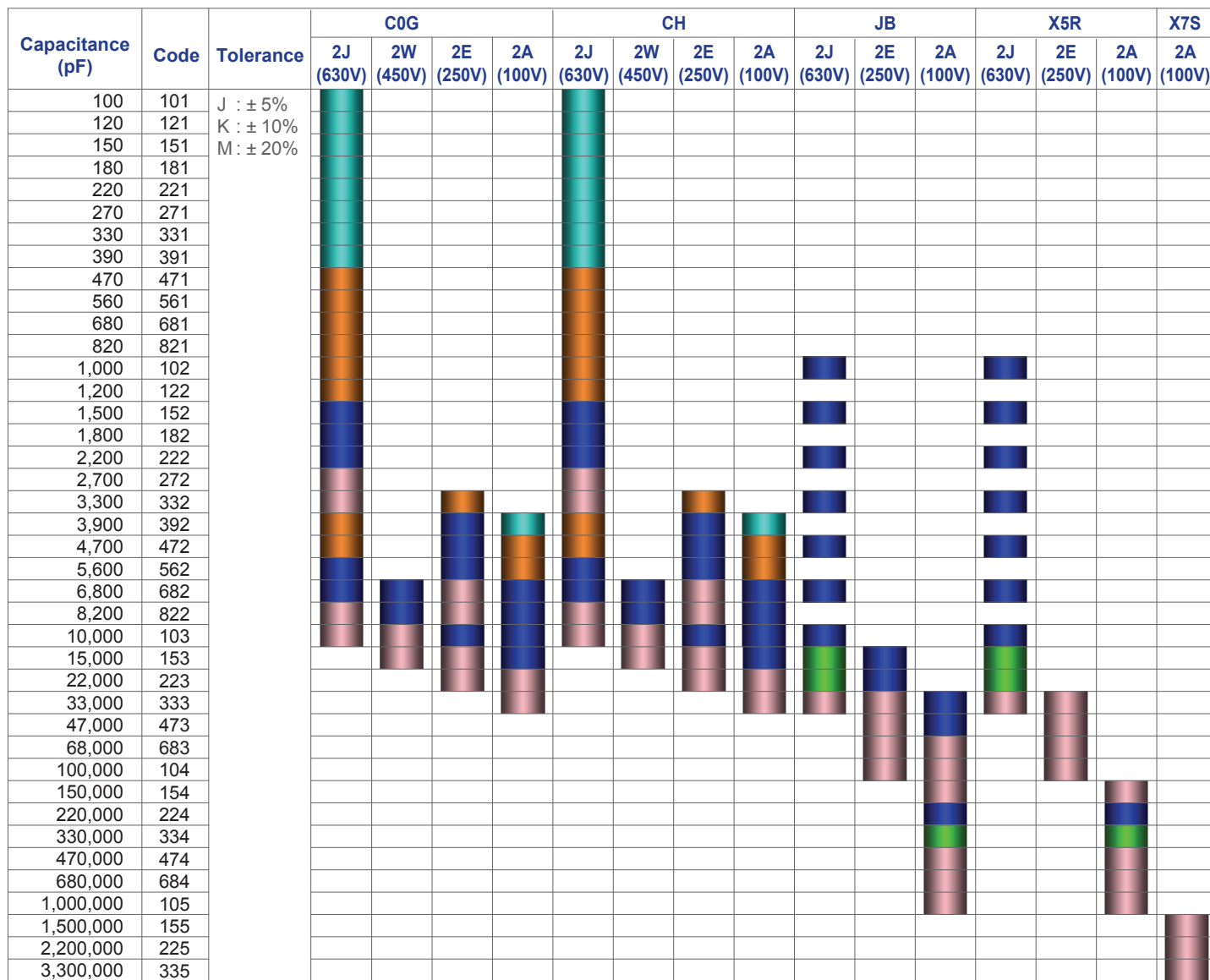
## Capacitance Range Chart

## EIA CC1206 [C3216]

### Capacitance Range Chart

Temperature Characteristics: C0G ( $0 \pm 30\text{ppm}/^\circ\text{C}$ ), CH ( $0 \pm 60\text{ppm}/^\circ\text{C}$ ), JB ( $\pm 10\%$ ), X5R ( $\pm 15\%$ ), X7S ( $\pm 22\%$ )

Rated Voltage: 630V (2J), 450V (2W), 250V (2E), 100V (2A)



Standard Thickness

0.60 mm 0.85 mm 1.15 mm 1.30 mm 1.60 mm



## Capacitance Range Chart

## EIA CC1206 [C3216]

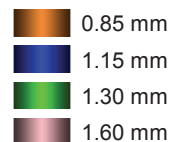
### Capacitance Range Chart

Temperature Characteristics: X7R ( $\pm 15\%$ ), X7S ( $\pm 22\%$ ), X7T ( $+22/-33\%$ )

Rated Voltage: 630V (2J), 450V (2W), 350V (2V), 250V (2E), 100V (2A)

| Capacitance (pF) | Code | Tolerance                      | X7R          |              |              | X7T          |              |              |              |
|------------------|------|--------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                  |      |                                | 2J<br>(630V) | 2E<br>(250V) | 2A<br>(100V) | 2J<br>(630V) | 2W<br>(450V) | 2V<br>(350V) | 2E<br>(250V) |
| 1,000            | 102  | K: $\pm 10\%$<br>M: $\pm 20\%$ |              |              |              |              |              |              |              |
| 1,500            | 152  |                                |              |              |              |              |              |              |              |
| 2,200            | 222  |                                |              |              |              |              |              |              |              |
| 3,300            | 332  |                                |              |              |              |              |              |              |              |
| 4,700            | 472  |                                |              |              |              |              |              |              |              |
| 6,800            | 682  |                                |              |              |              |              |              |              |              |
| 10,000           | 103  |                                |              |              |              |              |              |              |              |
| 15,000           | 153  |                                |              |              |              |              |              |              |              |
| 22,000           | 223  |                                |              |              |              |              |              |              |              |
| 33,000           | 333  |                                |              |              |              |              |              |              |              |
| 47,000           | 473  |                                |              |              |              |              |              |              |              |
| 68,000           | 683  |                                |              |              |              |              |              |              |              |
| 100,000          | 104  |                                |              |              |              |              |              |              |              |
| 150,000          | 154  |                                |              |              |              |              |              |              |              |
| 220,000          | 224  |                                |              |              |              |              |              |              |              |
| 330,000          | 334  |                                |              |              |              |              |              |              |              |
| 470,000          | 474  |                                |              |              |              |              |              |              |              |
| 680,000          | 684  |                                |              |              |              |              |              |              |              |
| 1,000,000        | 105  |                                |              |              |              |              |              |              |              |

Standard Thickness





## Capacitance Range Chart

## EIA CC1210 [C3225]

### Capacitance Range Chart

Temperature Characteristics: C0G ( $0 \pm 30\text{ppm}/^\circ\text{C}$ ), CH ( $0 \pm 60\text{ppm}/^\circ\text{C}$ ), JB ( $\pm 10\%$ )

Rated Voltage: 630V (2J), 450V (2W), 250V (2E), 100V (2A)

| Capacitance (pF) | Code | Tolerance                                         | C0G       |           |           |           | CH        |           |           |           | JB        |           |           |
|------------------|------|---------------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                  |      |                                                   | 2J (630V) | 2W (450V) | 2E (250V) | 2A (100V) | 2J (630V) | 2W (450V) | 2E (250V) | 2A (100V) | 2J (630V) | 2E (250V) | 2A (100V) |
| 3,900            | 392  | J : $\pm 5\%$<br>K : $\pm 10\%$<br>M : $\pm 20\%$ |           |           |           |           |           |           |           |           |           |           |           |
| 4,700            | 472  |                                                   |           |           |           |           |           |           |           |           |           |           |           |
| 5,600            | 562  |                                                   |           |           |           |           |           |           |           |           |           |           |           |
| 6,800            | 682  |                                                   |           |           |           |           |           |           |           |           |           |           |           |
| 8,200            | 822  |                                                   |           |           |           |           |           |           |           |           |           |           |           |
| 10,000           | 103  |                                                   |           |           |           |           |           |           |           |           |           |           |           |
| 15,000           | 153  |                                                   |           |           |           |           |           |           |           |           |           |           |           |
| 22,000           | 223  |                                                   |           |           |           |           |           |           |           |           |           |           |           |
| 33,000           | 333  |                                                   |           |           |           |           |           |           |           |           |           |           |           |
| 47,000           | 473  |                                                   |           |           |           |           |           |           |           |           |           |           |           |
| 68,000           | 683  |                                                   |           |           |           |           |           |           |           |           |           |           |           |
| 100,000          | 104  |                                                   |           |           |           |           |           |           |           |           |           |           |           |
| 150,000          | 154  |                                                   |           |           |           |           |           |           |           |           |           |           |           |
| 220,000          | 224  |                                                   |           |           |           |           |           |           |           |           |           |           |           |
| 330,000          | 334  |                                                   |           |           |           |           |           |           |           |           |           |           |           |
| 470,000          | 474  |                                                   |           |           |           |           |           |           |           |           |           |           |           |
| 680,000          | 684  |                                                   |           |           |           |           |           |           |           |           |           |           |           |
| 1,000,000        | 105  |                                                   |           |           |           |           |           |           |           |           |           |           |           |
| 1,500,000        | 155  |                                                   |           |           |           |           |           |           |           |           |           |           |           |
| 2,200,000        | 225  |                                                   |           |           |           |           |           |           |           |           |           |           |           |

Standard Thickness



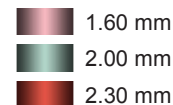
### Capacitance Range Chart

Temperature Characteristics: : X5R ( $\pm 15\%$ ), X7R ( $\pm 15\%$ ), X7S ( $\pm 22\%$ ), X7T ( $+22/-33\%$ )

Rated Voltage: 630V (2J), 450V (2W), 250V (2E), 100V (2A)

| Capacitance (pF) | Code | Tolerance                        | X5R       |           |           | X7R       |           |           | X7S       | X7T       |           |           |
|------------------|------|----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                  |      |                                  | 2J (630V) | 2E (250V) | 2A (100V) | 2J (630V) | 2E (250V) | 2A (100V) | 2A (100V) | 2J (630V) | 2W (450V) | 2E (250V) |
| 47,000           | 473  | K : $\pm 10\%$<br>M : $\pm 20\%$ |           |           |           |           |           |           |           |           |           |           |
| 68,000           | 683  |                                  |           |           |           |           |           |           |           |           |           |           |
| 100,000          | 104  |                                  |           |           |           |           |           |           |           |           |           |           |
| 150,000          | 154  |                                  |           |           |           |           |           |           |           |           |           |           |
| 220,000          | 224  |                                  |           |           |           |           |           |           |           |           |           |           |
| 330,000          | 334  |                                  |           |           |           |           |           |           |           |           |           |           |
| 470,000          | 474  |                                  |           |           |           |           |           |           |           |           |           |           |
| 680,000          | 684  |                                  |           |           |           |           |           |           |           |           |           |           |
| 1,000,000        | 105  |                                  |           |           |           |           |           |           |           |           |           |           |
| 1,500,000        | 155  |                                  |           |           |           |           |           |           |           |           |           |           |
| 2,200,000        | 225  |                                  |           |           |           |           |           |           |           |           |           |           |
| 3,300,000        | 335  |                                  |           |           |           |           |           |           |           |           |           |           |
| 4,700,000        | 475  |                                  |           |           |           |           |           |           |           |           |           |           |

Standard Thickness





## Capacitance Range Chart

## EIA CC1812 [C4532]

### Capacitance Range Chart

Temperature Characteristics: C0G ( $0 \pm 30\text{ppm}/^\circ\text{C}$ ), CH ( $0 \pm 60\text{ppm}/^\circ\text{C}$ ), JB ( $\pm 10\%$ )  
 Rated Voltage: 630V (2J), 450V (2W), 250V (2E), 100V (2A)

| Capacitance (pF) | Code | Tolerance      | C0G       |           |           |           | CH        |           |           |           | JB        |           |           |
|------------------|------|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                  |      |                | 2J (630V) | 2W (450V) | 2E (250V) | 2A (100V) | 2J (630V) | 2W (450V) | 2E (250V) | 2A (100V) | 2J (630V) | 2E (250V) | 2A (100V) |
| 8,200            | 822  | J : $\pm 5\%$  |           |           |           |           |           |           |           |           |           |           |           |
| 10,000           | 103  | K : $\pm 10\%$ |           |           |           |           |           |           |           |           |           |           |           |
| 15,000           | 153  | M : $\pm 20\%$ |           |           |           |           |           |           |           |           |           |           |           |
| 22,000           | 223  |                |           |           |           |           |           |           |           |           |           |           |           |
| 33,000           | 333  |                |           |           |           |           |           |           |           |           |           |           |           |
| 47,000           | 473  |                |           |           |           |           |           |           |           |           |           |           |           |
| 68,000           | 683  |                |           |           |           |           |           |           |           |           |           |           |           |
| 100,000          | 104  |                |           |           |           |           |           |           |           |           |           |           |           |
| 150,000          | 154  |                |           |           |           |           |           |           |           |           |           |           |           |
| 220,000          | 224  |                |           |           |           |           |           |           |           |           |           |           |           |
| 330,000          | 334  |                |           |           |           |           |           |           |           |           |           |           |           |
| 680,000          | 684  |                |           |           |           |           |           |           |           |           |           |           |           |
| 1,000,000        | 105  |                |           |           |           |           |           |           |           |           |           |           |           |
| 1,500,000        | 155  |                |           |           |           |           |           |           |           |           |           |           |           |
| 2,200,000        | 225  |                |           |           |           |           |           |           |           |           |           |           |           |

Standard Thickness

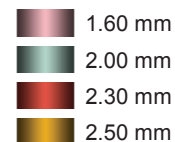


### Capacitance Range Chart

Temperature Characteristics: X5R ( $\pm 15\%$ ), X7R ( $\pm 15\%$ ), X7S ( $\pm 22\%$ ), X7T ( $+22\%/-33\%$ )  
 Rated Voltage: 630V (2J), 450V (2W), 250V (2E), 100V (2A)

| Capacitance (pF) | Code | Tolerance      | X5R       |           | X7R       |           |           | X7S       | X7T       |           |           |
|------------------|------|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                  |      |                | 2J (630V) | 2E (250V) | 2J (630V) | 2E (250V) | 2A (100V) | 2A (100V) | 2J (630V) | 2W (450V) | 2E (250V) |
| 68,000           | 683  | K : $\pm 10\%$ |           |           |           |           |           |           |           |           |           |
| 100,000          | 104  | M : $\pm 20\%$ |           |           |           |           |           |           |           |           |           |
| 150,000          | 154  |                |           |           |           |           |           |           |           |           |           |
| 220,000          | 224  |                |           |           |           |           |           |           |           |           |           |
| 300,000          | 304  |                |           |           |           |           |           |           |           |           |           |
| 330,000          | 334  |                |           |           |           |           |           |           |           |           |           |
| 470,000          | 474  |                |           |           |           |           |           |           |           |           |           |
| 680,000          | 684  |                |           |           |           |           |           |           |           |           |           |
| 1,000,000        | 105  |                |           |           |           |           |           |           |           |           |           |
| 1,500,000        | 155  |                |           |           |           |           |           |           |           |           |           |
| 2,200,000        | 225  |                |           |           |           |           |           |           |           |           |           |
| 3,300,000        | 335  |                |           |           |           |           |           |           |           |           |           |
| 4,700,000        | 475  |                |           |           |           |           |           |           |           |           |           |

Standard Thickness





## Capacitance Range Chart

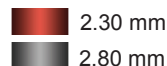
## EIA CC2220 [C5750]

### Capacitance Range Chart

Temperature Characteristics: C0G (0  $\pm$ 30ppm/°C), CH (0  $\pm$ 60ppm/°C)  
Rated Voltage: 630V (2J), 450V (2W), 250V (2E), 100V (2A)

| Capacitance (pF) | Code | Tolerance     | C0G       |           |           |           | CH        |           |           |           |
|------------------|------|---------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                  |      |               | 2J (630V) | 2W (450V) | 2E (250V) | 2A (100V) | 2J (630V) | 2W (450V) | 2E (250V) | 2A (100V) |
| 68,000           | 683  | K : $\pm$ 10% |           |           |           |           |           |           |           |           |
| 100,000          | 104  | J : $\pm$ 5%  |           |           |           |           |           |           |           |           |
| 150,000          | 154  |               |           |           |           |           |           |           |           |           |

Standard Thickness

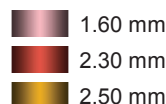


### Capacitance Range Chart

Temperature Characteristics: JB ( $\pm$ 10%), X5R ( $\pm$ 15%), X6S ( $\pm$ 22%)  
Rated Voltage: 630V (2J), 250V (2E), 100V (2A)

| Capacitance (pF) | Code | Tolerance    | JB        |           |           | X5R       |           |           | X6S       |
|------------------|------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                  |      |              | 2J (630V) | 2E (250V) | 2A (100V) | 2J (630V) | 2E (250V) | 2A (100V) | 2W (450V) |
| 150,000          | 154  | K: $\pm$ 10% |           |           |           |           |           |           |           |
| 220,000          | 224  | M: $\pm$ 20% |           |           |           |           |           |           |           |
| 330,000          | 334  |              |           |           |           |           |           |           |           |
| 470,000          | 474  |              |           |           |           |           |           |           |           |
| 680,000          | 684  |              |           |           |           |           |           |           |           |
| 1,000,000        | 105  |              |           |           |           |           |           |           |           |
| 1,500,000        | 155  |              |           |           |           |           |           |           |           |
| 2,200,000        | 225  |              |           |           |           |           |           |           |           |
| 3,300,000        | 335  |              |           |           |           |           |           |           |           |
| 4,700,000        | 475  |              |           |           |           |           |           |           |           |

Standard Thickness

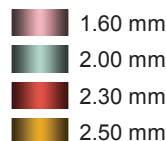


### Capacitance Range Chart

Temperature Characteristics: X7R ( $\pm$ 15%), X7S ( $\pm$ 22%), X7T ( $\pm$ 22/-33%)  
Rated Voltage: 630V (2J), 450V (2W), 250V (2E), 100V (2A)

| Capacitance (pF) | Code | Tolerance    | X7R       |           |           | X7S       | X7T       |           |           |
|------------------|------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                  |      |              | 2J (630V) | 2E (250V) | 2A (100V) | 2A (100V) | 2J (630V) | 2W (450V) | 2E (250V) |
| 150,000          | 154  | K: $\pm$ 10% |           |           |           |           |           |           |           |
| 220,000          | 224  | M: $\pm$ 20% |           |           |           |           |           |           |           |
| 330,000          | 334  |              |           |           |           |           |           |           |           |
| 470,000          | 474  |              |           |           |           |           |           |           |           |
| 680,000          | 684  |              |           |           |           |           |           |           |           |
| 1,000,000        | 105  |              |           |           |           |           |           |           |           |
| 1,500,000        | 155  |              |           |           |           |           |           |           |           |
| 2,200,000        | 225  |              |           |           |           |           |           |           |           |
| 3,300,000        | 335  |              |           |           |           |           |           |           |           |
| 4,700,000        | 475  |              |           |           |           |           |           |           |           |
| 6,800,000        | 685  |              |           |           |           |           |           |           |           |
| 10,000,000       | 106  |              |           |           |           |           |           |           |           |
| 15,000,000       | 156  |              |           |           |           |           |           |           |           |

Standard Thickness





## Capacitance Range Table

### Class 1 (Temperature Compensating)

Temperature Characteristics: C0G (-55 to +125°C, 0±30 ppm/°C)

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number          |                         |                         | Rated Voltage Edc: 100V |
|-------------|------|----------------|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|
|             |      |                |                       | Rated Voltage Edc: 630V | Rated Voltage Edc: 450V | Rated Voltage Edc: 250V |                         |
| 1 pF        | 1608 | 0.80 ± 0.10    | ± 0.25pF              |                         |                         |                         | C1608C0G2A010C080AA     |
| 1.5 pF      | 1608 | 0.80 ± 0.10    | ± 0.25pF              |                         |                         |                         | C1608C0G2A1R5C080AA     |
| 2 pF        | 1608 | 0.80 ± 0.10    | ± 0.25pF              |                         |                         |                         | C1608C0G2A020C080AA     |
| 2.2 pF      | 1608 | 0.80 ± 0.10    | ± 0.25pF              |                         |                         |                         | C1608C0G2A2R2C080AA     |
| 3 pF        | 1608 | 0.80 ± 0.10    | ± 0.25pF              |                         |                         |                         | C1608C0G2A030C080AA     |
| 3.3 pF      | 1608 | 0.80 ± 0.10    | ± 0.25pF              |                         |                         |                         | C1608C0G2A3R3C080AA     |
| 4 pF        | 1608 | 0.80 ± 0.10    | ± 0.25pF              |                         |                         |                         | C1608C0G2A040C080AA     |
| 4.7 pF      | 1608 | 0.80 ± 0.10    | ± 0.25pF              |                         |                         |                         | C1608C0G2A4R7C080AA     |
| 5 pF        | 1608 | 0.80 ± 0.10    | ± 0.25pF              |                         |                         |                         | C1608C0G2A050C080AA     |
| 6 pF        | 1608 | 0.80 ± 0.10    | ± 0.50pF              |                         |                         |                         | C1608C0G2A060D080AA     |
| 6.8 pF      | 1608 | 0.80 ± 0.10    | ± 0.50pF              |                         |                         |                         | C1608C0G2A6R8D080AA     |
| 7 pF        | 1608 | 0.80 ± 0.10    | ± 0.50pF              |                         |                         |                         | C1608C0G2A070D080AA     |
| 8 pF        | 1608 | 0.80 ± 0.10    | ± 0.50pF              |                         |                         |                         | C1608C0G2A080D080AA     |
| 9 pF        | 1608 | 0.80 ± 0.10    | ± 0.50pF              |                         |                         |                         | C1608C0G2A090D080AA     |
| 10 pF       | 1608 | 0.80 ± 0.10    | ± 0.50pF              |                         |                         |                         | C1608C0G2A100D080AA     |
| 12 pF       | 1608 | 0.80 ± 0.10    | ± 5%                  |                         |                         |                         | C1608C0G2A120J080AA     |
| 15 pF       | 1608 | 0.80 ± 0.10    | ± 5%                  |                         |                         |                         | C1608C0G2A150J080AA     |
| 18 pF       | 1608 | 0.80 ± 0.10    | ± 5%                  |                         |                         |                         | C1608C0G2A180J080AA     |
| 22 pF       | 1608 | 0.80 ± 0.10    | ± 5%                  |                         |                         |                         | C1608C0G2A220J080AA     |
| 27 pF       | 1608 | 0.80 ± 0.10    | ± 5%                  |                         |                         |                         | C1608C0G2A270J080AA     |
| 33 pF       | 1608 | 0.80 ± 0.10    | ± 5%                  |                         |                         |                         | C1608C0G2A330J080AA     |
| 39 pF       | 1608 | 0.80 ± 0.10    | ± 5%                  |                         |                         |                         | C1608C0G2A390J080AA     |
| 47 pF       | 1608 | 0.80 ± 0.10    | ± 5%                  |                         |                         |                         | C1608C0G2A470J080AA     |
| 56 pF       | 1608 | 0.80 ± 0.10    | ± 5%                  |                         |                         |                         | C1608C0G2A560J080AA     |
| 68 pF       | 1608 | 0.80 ± 0.10    | ± 5%                  |                         |                         |                         | C1608C0G2A680J080AA     |
| 82 pF       | 1608 | 0.80 ± 0.10    | ± 5%                  |                         |                         |                         | C1608C0G2A820J080AA     |
| 100 pF      | 1005 | 0.50 ± 0.05    | ± 10%                 |                         |                         |                         | C1005C0G2A101K050BA     |
|             |      |                | ± 5%                  |                         |                         |                         | C1005C0G2A101J050BA     |
|             | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608C0G2E101K080AA     | C1608C0G2A101K080AA     |
|             |      |                | ± 5%                  |                         |                         | C1608C0G2E101J080AA     | C1608C0G2A101J080AA     |
|             |      |                | ± 2%                  |                         |                         |                         | C1608C0G2A101G080AA     |
|             |      |                | ± 1%                  |                         |                         |                         | C1608C0G2A101F080AA     |
|             | 2012 | 0.60 ± 0.15    | ± 10%                 |                         | C2012C0G2W101K060AA     |                         |                         |
|             |      |                | ± 5%                  |                         | C2012C0G2W101J060AA     |                         |                         |
|             | 3216 | 0.60 ± 0.15    | ± 10%                 | C3216C0G2J101K060AA     |                         |                         |                         |
|             |      |                | ± 5%                  | C3216C0G2J101J060AA     |                         |                         |                         |
| 120 pF      | 1005 | 0.50 ± 0.05    | ± 10%                 |                         |                         |                         | C1005C0G2A121K050BA     |
|             |      |                | ± 5%                  |                         |                         |                         | C1005C0G2A121J050BA     |
|             | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608C0G2E121K080AA     | C1608C0G2A121K080AA     |
|             |      |                | ± 5%                  |                         |                         | C1608C0G2E121J080AA     | C1608C0G2A121J080AA     |
|             | 2012 | 0.60 ± 0.15    | ± 10%                 |                         | C2012C0G2W121K060AA     |                         |                         |
|             |      |                | ± 5%                  |                         | C2012C0G2W121J060AA     |                         |                         |
|             | 3216 | 0.60 ± 0.15    | ± 10%                 | C3216C0G2J121K060AA     |                         |                         |                         |
|             |      |                | ± 5%                  | C3216C0G2J121J060AA     |                         |                         |                         |
| 150 pF      | 1005 | 0.50 ± 0.05    | ± 10%                 |                         |                         |                         | C1005C0G2A151K050BA     |
|             |      |                | ± 5%                  |                         |                         |                         | C1005C0G2A151J050BA     |
|             | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608C0G2E151K080AA     | C1608C0G2A151K080AA     |
|             |      |                | ± 5%                  |                         |                         | C1608C0G2E151J080AA     | C1608C0G2A151J080AA     |
|             | 2012 | 0.60 ± 0.15    | ± 10%                 |                         | C2012C0G2W151K060AA     |                         |                         |
|             |      |                | ± 5%                  |                         | C2012C0G2W151J060AA     |                         |                         |
|             | 3216 | 0.60 ± 0.15    | ± 10%                 | C3216C0G2J151K060AA     |                         |                         |                         |
|             |      |                | ± 5%                  | C3216C0G2J151J060AA     |                         |                         |                         |
| 180 pF      | 1005 | 0.50 ± 0.05    | ± 10%                 |                         |                         |                         | C1005C0G2A181K050BA     |
|             |      |                | ± 5%                  |                         |                         |                         | C1005C0G2A181J050BA     |
|             | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608C0G2E181K080AA     | C1608C0G2A181K080AA     |
|             |      |                | ± 5%                  |                         |                         | C1608C0G2E181J080AA     | C1608C0G2A181J080AA     |
|             | 2012 | 0.60 ± 0.15    | ± 10%                 |                         | C2012C0G2W181K060AA     |                         |                         |
|             |      |                | ± 5%                  |                         | C2012C0G2W181J060AA     |                         |                         |
|             | 3216 | 0.60 ± 0.15    | ± 10%                 | C3216C0G2J181K060AA     |                         |                         |                         |
|             |      |                | ± 5%                  | C3216C0G2J181J060AA     |                         |                         |                         |



## Capacitance Range Table

### Class 1 (Temperature Compensating)

Temperature Characteristics: C0G (-55 to +125°C, 0±30 ppm/°C)

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number          |                         |                         |                         |
|-------------|------|----------------|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|
|             |      |                |                       | Rated Voltage Edc: 630V | Rated Voltage Edc: 450V | Rated Voltage Edc: 250V | Rated Voltage Edc: 100V |
| 220 pF      | 1005 | 0.50 ± 0.05    | ± 10%                 |                         |                         |                         | C1005C0G2A221K050BA     |
|             |      |                | ± 5%                  |                         |                         |                         | C1005C0G2A221J050BA     |
|             | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608C0G2E221K080AA     | C1608C0G2A221K080AA     |
|             |      |                | ± 5%                  |                         |                         | C1608C0G2E221J080AA     | C1608C0G2A221J080AA     |
|             | 2012 | 0.60 ± 0.15    | ± 10%                 |                         | C2012C0G2W221K060AA     |                         |                         |
| 270 pF      |      |                | ± 5%                  |                         | C2012C0G2W221J060AA     |                         |                         |
|             | 3216 | 0.60 ± 0.15    | ± 10%                 | C3216C0G2J221K060AA     |                         |                         |                         |
|             |      |                | ± 5%                  | C3216C0G2J221J060AA     |                         |                         |                         |
|             | 1005 | 0.50 ± 0.05    | ± 10%                 |                         |                         |                         | C1005C0G2A271K050BA     |
|             |      |                | ± 5%                  |                         |                         |                         | C1005C0G2A271J050BA     |
| 330 pF      | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608C0G2E271K080AA     | C1608C0G2A271K080AA     |
|             |      |                | ± 5%                  |                         |                         | C1608C0G2E271J080AA     | C1608C0G2A271J080AA     |
|             | 2012 | 0.60 ± 0.15    | ± 10%                 |                         | C2012C0G2W271K060AA     |                         |                         |
|             |      |                | ± 5%                  |                         | C2012C0G2W271J060AA     |                         |                         |
|             | 3216 | 0.60 ± 0.15    | ± 10%                 | C3216C0G2J271K060AA     |                         |                         |                         |
| 390 pF      |      |                | ± 5%                  | C3216C0G2J271J060AA     |                         |                         |                         |
|             | 1005 | 0.50 ± 0.05    | ± 10%                 |                         |                         |                         | C1005C0G2A331K050BA     |
|             |      |                | ± 5%                  |                         |                         |                         | C1005C0G2A331J050BA     |
|             | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608C0G2E331K080AA     | C1608C0G2A331K080AA     |
|             |      |                | ± 5%                  |                         |                         | C1608C0G2E331J080AA     | C1608C0G2A331J080AA     |
| 470 pF      | 2012 | 0.60 ± 0.15    | ± 10%                 |                         | C2012C0G2W331K060AA     |                         |                         |
|             |      |                | ± 5%                  |                         | C2012C0G2W331J060AA     |                         |                         |
|             | 3216 | 0.60 ± 0.15    | ± 10%                 | C3216C0G2J331K060AA     |                         |                         |                         |
|             |      |                | ± 5%                  | C3216C0G2J331J060AA     |                         |                         |                         |
|             | 1005 | 0.50 ± 0.05    | ± 10%                 |                         |                         |                         | C1005C0G2A391K050BA     |
| 560 pF      |      |                | ± 5%                  |                         |                         |                         | C1005C0G2A391J050BA     |
|             | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608C0G2E391K080AA     | C1608C0G2A391K080AA     |
|             |      |                | ± 5%                  |                         |                         | C1608C0G2E391J080AA     | C1608C0G2A391J080AA     |
|             | 2012 | 0.60 ± 0.15    | ± 10%                 |                         | C2012C0G2W391K060AA     |                         |                         |
|             |      |                | ± 5%                  |                         | C2012C0G2W391J060AA     |                         |                         |
| 680 pF      | 3216 | 0.60 ± 0.15    | ± 10%                 | C3216C0G2J391K060AA     |                         |                         |                         |
|             |      |                | ± 5%                  | C3216C0G2J391J060AA     |                         |                         |                         |
|             | 1005 | 0.50 ± 0.05    | ± 10%                 |                         |                         |                         | C1005C0G2A471K050BA     |
|             |      |                | ± 5%                  |                         |                         |                         | C1005C0G2A471J050BA     |
|             | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608C0G2E471K080AA     | C1608C0G2A471K080AA     |
| 820 pF      |      |                | ± 5%                  |                         |                         | C1608C0G2E471J080AA     | C1608C0G2A471J080AA     |
|             | 2012 | 0.60 ± 0.15    | ± 10%                 |                         | C2012C0G2W471K060AA     |                         |                         |
|             |      |                | ± 5%                  |                         | C2012C0G2W471J060AA     |                         |                         |
|             | 3216 | 0.85 ± 0.15    | ± 10%                 | C3216C0G2J471K085AA     |                         |                         |                         |
|             |      |                | ± 5%                  | C3216C0G2J471J085AA     |                         |                         |                         |
| 1000 pF     | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608C0G2E561K080AA     | C1608C0G2A561K080AA     |
|             |      |                | ± 5%                  |                         |                         | C1608C0G2E561J080AA     | C1608C0G2A561J080AA     |
|             | 2012 | 0.60 ± 0.15    | ± 10%                 |                         | C2012C0G2W561K060AA     |                         |                         |
|             |      |                | ± 5%                  |                         | C2012C0G2W561J060AA     |                         |                         |
|             | 3216 | 0.85 ± 0.15    | ± 10%                 | C3216C0G2J561K085AA     |                         |                         |                         |
| 1500 pF     |      |                | ± 5%                  | C3216C0G2J561J085AA     |                         |                         |                         |
|             | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608C0G2E681K080AA     | C1608C0G2A681K080AA     |
|             |      |                | ± 5%                  |                         |                         | C1608C0G2E681J080AA     | C1608C0G2A681J080AA     |
|             | 2012 | 0.60 ± 0.15    | ± 10%                 |                         | C2012C0G2W681K060AA     |                         |                         |
|             |      |                | ± 5%                  |                         | C2012C0G2W681J060AA     |                         |                         |
| 2200 pF     | 3216 | 0.85 ± 0.15    | ± 10%                 | C3216C0G2J681K085AA     |                         |                         |                         |
|             |      |                | ± 5%                  | C3216C0G2J681J085AA     |                         |                         |                         |
|             | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608C0G2E821K080AA     | C1608C0G2A821K080AA     |
|             |      |                | ± 5%                  |                         |                         | C1608C0G2E821J080AA     | C1608C0G2A821J080AA     |
|             | 2012 | 0.60 ± 0.15    | ± 10%                 |                         | C2012C0G2W821K060AA     |                         |                         |
| 3300 pF     |      |                | ± 5%                  |                         | C2012C0G2W821J060AA     |                         |                         |
|             | 3216 | 0.85 ± 0.15    | ± 10%                 | C3216C0G2J821K085AA     |                         |                         |                         |
|             |      |                | ± 5%                  | C3216C0G2J821J085AA     |                         |                         |                         |
|             | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608C0G2E821K080AA     | C1608C0G2A821K080AA     |
|             |      |                | ± 5%                  |                         |                         | C1608C0G2E821J080AA     | C1608C0G2A821J080AA     |
| 4700 pF     | 2012 | 0.60 ± 0.15    | ± 10%                 |                         | C2012C0G2W821K060AA     |                         |                         |
|             |      |                | ± 5%                  |                         | C2012C0G2W821J060AA     |                         |                         |
|             | 3216 | 0.85 ± 0.15    | ± 10%                 | C3216C0G2J821K085AA     |                         |                         |                         |
|             |      |                | ± 5%                  | C3216C0G2J821J085AA     |                         |                         |                         |
|             | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608C0G2E821K080AA     | C1608C0G2A821K080AA     |
| 6800 pF     |      |                | ± 5%                  |                         |                         | C1608C0G2E821J080AA     | C1608C0G2A821J080AA     |
|             | 2012 | 0.60 ± 0.15    | ± 10%                 |                         | C2012C0G2W821K060AA     |                         |                         |
|             |      |                | ± 5%                  |                         | C2012C0G2W821J060AA     |                         |                         |
|             | 3216 | 0.85 ± 0.15    | ± 10%                 | C3216C0G2J821K085AA     |                         |                         |                         |
|             |      |                | ± 5%                  | C3216C0G2J821J085AA     |                         |                         |                         |



## Capacitance Range Table

### Class 1 (Temperature Compensating)

Temperature Characteristics: C0G (-55 to +125°C, 0±30 ppm/°C)

| Capacitance | Size | Thickness (mm)   | Capacitance Tolerance | Catalog Number          |                         |                         |                         |
|-------------|------|------------------|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|
|             |      |                  |                       | Rated Voltage Edc: 630V | Rated Voltage Edc: 450V | Rated Voltage Edc: 250V | Rated Voltage Edc: 100V |
| 1 nF        | 1608 | 0.80 ± 0.10      | ± 10%                 |                         |                         | C1608C0G2E102K080AA     | C1608C0G2A102K080AA     |
|             |      |                  | ± 5%                  |                         |                         | C1608C0G2E102J080AA     | C1608C0G2A102J080AA     |
|             |      |                  | ± 2%                  |                         |                         |                         | C1608C0G2A102G080AA     |
|             |      |                  | ± 1%                  |                         |                         |                         | C1608C0G2A102F080AA     |
|             | 2012 | 0.60 ± 0.15      | ± 10%                 |                         | C2012C0G2W102K060AA     |                         |                         |
|             |      |                  | ± 5%                  |                         | C2012C0G2W102J060AA     |                         | C2012C0G2A102J060AA     |
|             |      | 0.85 ± 0.15      | ± 10%                 |                         |                         | C2012C0G2E102K085AA     |                         |
|             |      |                  | ± 5%                  |                         |                         | C2012C0G2E102J085AA     |                         |
|             | 3216 | 0.85 ± 0.15      | ± 10%                 | C3216C0G2J102K085AA     |                         |                         |                         |
|             |      |                  | ± 5%                  | C3216C0G2J102J085AA     |                         |                         |                         |
| 1.2 nF      | 1608 | 0.80 ± 0.10      | ± 10%                 |                         |                         | C1608C0G2E122K080AA     | C1608C0G2A122K080AA     |
|             |      |                  | ± 5%                  |                         |                         | C1608C0G2E122J080AA     | C1608C0G2A122J080AA     |
|             |      |                  | ± 10%                 |                         | C2012C0G2W122K060AA     |                         |                         |
|             |      |                  | ± 5%                  |                         | C2012C0G2W122J060AA     |                         | C2012C0G2A122J060AA     |
|             | 2012 | 0.60 ± 0.15      | ± 10%                 |                         |                         | C2012C0G2E122K085AA     |                         |
|             |      |                  | ± 5%                  |                         |                         | C2012C0G2E122J085AA     |                         |
|             |      | 0.85 ± 0.15      | ± 10%                 |                         |                         |                         |                         |
|             |      |                  | ± 5%                  |                         |                         |                         |                         |
|             | 3216 | 0.85 ± 0.15      | ± 10%                 | C3216C0G2J122K085AA     |                         |                         |                         |
|             |      |                  | ± 5%                  | C3216C0G2J122J085AA     |                         |                         |                         |
| 1.5 nF      | 1608 | 0.80 ± 0.10      | ± 10%                 |                         |                         | C1608C0G2E152K080AA     | C1608C0G2A152K080AA     |
|             |      |                  | ± 5%                  |                         |                         | C1608C0G2E152J080AA     | C1608C0G2A152J080AA     |
|             |      |                  | ± 10%                 |                         | C2012C0G2W152K085AA     |                         |                         |
|             |      |                  | ± 5%                  |                         | C2012C0G2W152J085AA     |                         | C2012C0G2A152J085AA     |
|             | 2012 | 0.60 ± 0.15      | ± 10%                 |                         |                         |                         |                         |
|             |      |                  | ± 5%                  |                         |                         |                         |                         |
|             |      | 0.85 ± 0.15      | ± 10%                 |                         | C2012C0G2E152K085AA     |                         |                         |
|             |      |                  | ± 5%                  |                         | C2012C0G2E152J085AA     |                         |                         |
|             | 3216 | 1.15 ± 0.15      | ± 10%                 | C3216C0G2J152K115AA     |                         |                         |                         |
|             |      |                  | ± 5%                  | C3216C0G2J152J115AA     |                         |                         |                         |
| 1.8 nF      | 1608 | 0.80 ± 0.10      | ± 10%                 |                         |                         | C1608C0G2E182K080AA     | C1608C0G2A182K080AA     |
|             |      |                  | ± 5%                  |                         |                         | C1608C0G2E182J080AA     | C1608C0G2A182J080AA     |
|             |      |                  | ± 10%                 |                         | C2012C0G2W182K085AA     |                         | C2012C0G2A182K085AA     |
|             |      |                  | ± 5%                  |                         | C2012C0G2W182J085AA     |                         | C2012C0G2A182J085AA     |
|             | 2012 | 0.85 ± 0.15      | ± 10%                 |                         |                         |                         |                         |
|             |      |                  | ± 5%                  |                         |                         |                         |                         |
|             |      | 1.25 ± 0.20      | ± 10%                 |                         |                         | C2012C0G2E182K125AA     |                         |
|             |      |                  | ± 5%                  |                         |                         | C2012C0G2E182J125AA     |                         |
|             | 3216 | 1.15 ± 0.15      | ± 10%                 | C3216C0G2J182K115AA     |                         |                         |                         |
|             |      |                  | ± 5%                  | C3216C0G2J182J115AA     |                         |                         |                         |
| 2.2 nF      | 1608 | 0.80 ± 0.10      | ± 10%                 |                         |                         |                         | C1608C0G2A222K080AA     |
|             |      |                  | ± 5%                  |                         |                         |                         | C1608C0G2A222J080AA     |
|             |      |                  | ± 10%                 |                         |                         | C1608C0G2E222K080AA     |                         |
|             |      |                  | ± 5%                  |                         |                         | C1608C0G2E222J080AA     |                         |
|             | 2012 | 0.85 ± 0.15      | ± 10%                 |                         | C2012C0G2W222K085AA     |                         | C2012C0G2A222K085AA     |
|             |      |                  | ± 5%                  |                         | C2012C0G2W222J085AA     |                         | C2012C0G2A222J085AA     |
|             |      | 1.25 ± 0.20      | ± 10%                 |                         |                         | C2012C0G2E222K125AA     |                         |
|             |      |                  | ± 5%                  |                         |                         | C2012C0G2E222J125AA     |                         |
|             | 3216 | 1.15 ± 0.15      | ± 10%                 | C3216C0G2J222K115AA     |                         |                         |                         |
|             |      |                  | ± 5%                  | C3216C0G2J222J115AA     |                         |                         |                         |
| 2.7 nF      | 1608 | 0.80 ± 0.15/-0.1 | ± 10%                 |                         |                         |                         | C1608C0G2A272K080AA     |
|             |      |                  | ± 5%                  |                         |                         |                         | C1608C0G2A272J080AA     |
|             |      |                  | ± 10%                 |                         | C2012C0G2W272K125AA     | C2012C0G2E272K125AA     | C2012C0G2A272K125AA     |
|             |      |                  | ± 5%                  |                         | C2012C0G2W272J125AA     | C2012C0G2E272J125AA     | C2012C0G2A272J125AA     |
|             | 2012 | 1.25 ± 0.20      | ± 10%                 |                         |                         |                         |                         |
|             |      |                  | ± 5%                  |                         |                         |                         |                         |
|             |      | 1.60 ± 0.20      | ± 10%                 | C3216C0G2J272K160AA     |                         |                         |                         |
|             |      |                  | ± 5%                  | C3216C0G2J272J160AA     |                         |                         |                         |
| 3.3 nF      | 1608 | 0.80 ± 0.15/-0.1 | ± 10%                 |                         |                         |                         | C1608C0G2A332K080AA     |
|             |      |                  | ± 5%                  |                         |                         |                         | C1608C0G2A332J080AA     |
|             |      |                  | ± 10%                 |                         |                         | C2012C0G2E332K085AA     |                         |
|             |      |                  | ± 5%                  |                         |                         | C2012C0G2E332J085AA     |                         |
|             | 2012 | 0.85 ± 0.15      | ± 10%                 |                         |                         |                         |                         |
|             |      |                  | ± 5%                  |                         |                         |                         |                         |
|             |      | 1.25 ± 0.20      | ± 10%                 |                         | C2012C0G2W332K125AA     |                         | C2012C0G2A332K125AA     |
|             |      |                  | ± 5%                  |                         | C2012C0G2W332J125AA     |                         | C2012C0G2A332J125AA     |
|             | 3216 | 1.60 ± 0.20      | ± 10%                 |                         |                         | C3216C0G2E332K085AA     |                         |
|             |      |                  | ± 5%                  |                         |                         | C3216C0G2E332J085AA     |                         |
|             |      |                  | ± 10%                 | C3216C0G2J332K160AA     |                         |                         |                         |
|             |      |                  | ± 5%                  | C3216C0G2J332J160AA     |                         |                         |                         |



## Capacitance Range Table

### Class 1 (Temperature Compensating)

Temperature Characteristics: C0G (-55 to +125°C, 0±30 ppm/°C)

| Capacitance | Size | Thickness (mm)  | Capacitance Tolerance | Catalog Number          |                         |                         |                         |
|-------------|------|-----------------|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|
|             |      |                 |                       | Rated Voltage Edc: 630V | Rated Voltage Edc: 450V | Rated Voltage Edc: 250V | Rated Voltage Edc: 100V |
| 3.9 nF      | 2012 | 1.25 ± 0.20     | ± 10%                 |                         | C2012C0G2W392K125AA     | C2012C0G2E392K125AA     | C2012C0G2A392K125AA     |
|             |      |                 | ± 5%                  |                         | C2012C0G2W392J125AA     | C2012C0G2E392J125AA     | C2012C0G2A392J125AA     |
|             |      | 0.60 ± 0.15     | ± 10%                 |                         |                         |                         | C3216C0G2A392K060AA     |
|             |      |                 | ± 5%                  |                         |                         |                         | C3216C0G2A392J060AA     |
|             | 3216 | 0.85 ± 0.15     | ± 10%                 | C3216C0G2J392K085AA     |                         |                         |                         |
|             |      |                 | ± 5%                  | C3216C0G2J392J085AA     |                         |                         |                         |
|             |      | 1.15 ± 0.15     | ± 10%                 |                         |                         | C3216C0G2E392K115AA     |                         |
|             |      |                 | ± 5%                  |                         |                         | C3216C0G2E392J115AA     |                         |
|             | 3225 | 1.25 ± 0.20     | ± 10%                 | C3225C0G2J392K125AA     |                         |                         |                         |
|             |      |                 | ± 5%                  | C3225C0G2J392J125AA     |                         |                         |                         |
| 4.7 nF      | 2012 | 1.25 ± 0.20     | ± 10%                 |                         | C2012C0G2W472K125AA     | C2012C0G2E472K125AA     | C2012C0G2A472K125AA     |
|             |      |                 | ± 5%                  |                         | C2012C0G2W472J125AA     | C2012C0G2E472J125AA     | C2012C0G2A472J125AA     |
|             |      | 0.85 ± 0.15     | ± 10%                 | C3216C0G2J472K085AA     |                         |                         | C3216C0G2A472K085AA     |
|             |      |                 | ± 5%                  | C3216C0G2J472J085AA     |                         |                         | C3216C0G2A472J085AA     |
|             | 3216 | 1.15 ± 0.15     | ± 10%                 |                         |                         | C3216C0G2E472K115AA     |                         |
|             |      |                 | ± 5%                  |                         |                         | C3216C0G2E472J115AA     |                         |
|             |      | 1.60 ± 0.20     | ± 10%                 | C3225C0G2J472K160AA     |                         |                         |                         |
|             |      |                 | ± 5%                  | C3225C0G2J472J160AA     |                         |                         |                         |
|             | 3225 | 1.60 ± 0.20     | ± 10%                 |                         | C2012C0G2W562K125AA     | C2012C0G2E562K125AA     | C2012C0G2A562K125AA     |
|             |      |                 | ± 5%                  |                         | C2012C0G2W562J125AA     | C2012C0G2E562J125AA     | C2012C0G2A562J125AA     |
| 5.6 nF      | 2012 | 1.25 ± 0.20     | ± 10%                 |                         | C2012C0G2W562K125AA     | C2012C0G2E562K125AA     | C2012C0G2A562K125AA     |
|             |      |                 | ± 5%                  |                         | C2012C0G2W562J125AA     | C2012C0G2E562J125AA     | C2012C0G2A562J125AA     |
|             |      | 0.85 ± 0.15     | ± 10%                 |                         |                         |                         | C3216C0G2A562K085AA     |
|             |      |                 | ± 5%                  |                         |                         |                         | C3216C0G2A562J085AA     |
|             | 3216 | 1.15 ± 0.15     | ± 10%                 | C3216C0G2J562K115AA     |                         | C3216C0G2E562K115AA     |                         |
|             |      |                 | ± 5%                  | C3216C0G2J562J115AA     |                         | C3216C0G2E562J115AA     |                         |
|             |      | 1.60 ± 0.20     | ± 10%                 | C3225C0G2J562K160AA     |                         |                         |                         |
|             |      |                 | ± 5%                  | C3225C0G2J562J160AA     |                         |                         |                         |
|             | 3225 | 1.60 ± 0.20     | ± 10%                 |                         |                         |                         |                         |
|             |      |                 | ± 5%                  |                         |                         |                         |                         |
| 6.8 nF      | 2012 | 1.25 ± 0.20     | ± 10%                 |                         |                         | C2012C0G2E682K125AA     | C2012C0G2A682K125AA     |
|             |      |                 | ± 5%                  |                         |                         | C2012C0G2E682J125AA     | C2012C0G2A682J125AA     |
|             |      | 1.15 ± 0.15     | ± 10%                 | C3216C0G2J682K115AA     | C3216C0G2W682K115AA     |                         | C3216C0G2A682K115AA     |
|             |      |                 | ± 5%                  | C3216C0G2J682J115AA     | C3216C0G2W682J115AA     |                         | C3216C0G2A682J115AA     |
|             | 3216 | 1.60 ± 0.20     | ± 10%                 |                         |                         | C3216C0G2E682K160AA     |                         |
|             |      |                 | ± 5%                  |                         |                         | C3216C0G2E682J160AA     |                         |
|             |      | 2.00 ± 0.20     | ± 10%                 | C3225C0G2J682K200AA     |                         |                         |                         |
|             |      |                 | ± 5%                  | C3225C0G2J682J200AA     |                         |                         |                         |
|             | 3225 | 2.00 ± 0.20     | ± 10%                 |                         |                         |                         |                         |
|             |      |                 | ± 5%                  |                         |                         |                         |                         |
| 8.2 nF      | 2012 | 1.25 ± 0.20     | ± 10%                 |                         |                         | C2012C0G2E822K125AA     | C2012C0G2A822K125AA     |
|             |      |                 | ± 5%                  |                         |                         | C2012C0G2E822J125AA     | C2012C0G2A822J125AA     |
|             |      | 1.15 ± 0.15     | ± 10%                 |                         | C3216C0G2W822K115AA     |                         | C3216C0G2A822K115AA     |
|             |      |                 | ± 5%                  |                         | C3216C0G2W822J115AA     |                         | C3216C0G2A822J115AA     |
|             | 3216 | 1.60 ± 0.20     | ± 10%                 | C3216C0G2J822K160AA     |                         | C3216C0G2E822K160AA     |                         |
|             |      |                 | ± 5%                  | C3216C0G2J822J160AA     |                         | C3216C0G2E822J160AA     |                         |
|             |      | 1.25 ± 0.20     | ± 10%                 | C3225C0G2J822K125AA     |                         |                         |                         |
|             |      |                 | ± 5%                  | C3225C0G2J822J125AA     |                         |                         |                         |
|             | 4532 | 1.60 ± 0.20     | ± 10%                 | C4532C0G2J822K160KA     |                         |                         |                         |
|             |      |                 | ± 5%                  | C4532C0G2J822J160KA     |                         |                         |                         |
| 10 nF       | 2012 | 1.25 ± 0.20     | ± 10%                 |                         |                         | C2012C0G2E103K125AA     | C2012C0G2A103K125AA     |
|             |      |                 | ± 5%                  |                         |                         | C2012C0G2E103J125AA     | C2012C0G2A103J125AA     |
|             |      | 1.15 ± 0.15     | ± 10%                 |                         |                         | C3216C0G2E103K115AA     | C3216C0G2A103K115AA     |
|             |      |                 | ± 5%                  |                         |                         | C3216C0G2E103J115AA     | C3216C0G2A103J115AA     |
|             | 3216 | 1.60 ± 0.20     | ± 10%                 | C3216C0G2J103K160AA     | C3216C0G2W103K160AA     |                         |                         |
|             |      |                 | ± 5%                  | C3216C0G2J103J160AA     | C3216C0G2W103J160AA     |                         |                         |
|             |      | 1.25 ± 0.20     | ± 10%                 | C3225C0G2J103K125AA     |                         |                         |                         |
|             |      |                 | ± 5%                  | C3225C0G2J103J125AA     |                         |                         |                         |
|             | 3225 | 1.60 ± 0.20     | ± 10%                 |                         |                         | C3225C0G2E103K160AA     |                         |
|             |      |                 | ± 5%                  |                         |                         | C3225C0G2E103J160AA     |                         |
| 15 nF       | 2012 | 1.25 ± 0.20     | ± 10%                 |                         |                         |                         |                         |
|             |      |                 | ± 5%                  |                         |                         |                         |                         |
|             |      | 1.15 ± 0.15     | ± 10%                 |                         |                         |                         | C3216C0G2A153K115AA     |
|             |      |                 | ± 5%                  |                         |                         |                         | C3216C0G2A153J115AA     |
|             | 3216 | 1.60 ± 0.20     | ± 10%                 |                         |                         | C3216C0G2E153K160AA     |                         |
|             |      |                 | ± 5%                  |                         |                         | C3216C0G2E153J160AA     |                         |
|             |      | 1.60 ± 0.3/-0.1 | ± 10%                 |                         | C3216C0G2W153K160AA     |                         |                         |
|             |      |                 | ± 5%                  |                         | C3216C0G2W153J160AA     |                         |                         |
|             | 4532 | 1.60 ± 0.20     | ± 10%                 |                         |                         |                         |                         |
|             |      |                 | ± 5%                  |                         |                         |                         |                         |



## Capacitance Range Table

### Class 1 (Temperature Compensating)

Temperature Characteristics: C0G (-55 to +125°C, 0±30 ppm/°C)

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number          |                         |                         | Rated Voltage Edc: 100V |
|-------------|------|----------------|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|
|             |      |                |                       | Rated Voltage Edc: 630V | Rated Voltage Edc: 450V | Rated Voltage Edc: 250V |                         |
| 15 nF       | 3225 | 1.25 ± 0.20    | ± 10%                 |                         |                         |                         | C3225C0G2A153K125AA     |
|             |      |                | ± 5%                  |                         |                         |                         | C3225C0G2A153J125AA     |
|             |      | 1.60 ± 0.20    | ± 10%                 | C3225C0G2J153K160AA     |                         |                         |                         |
|             |      |                | ± 5%                  | C3225C0G2J153J160AA     |                         |                         |                         |
|             | 4532 | 2.00 ± 0.20    | ± 10%                 |                         |                         | C3225C0G2E153K200AA     |                         |
|             |      |                | ± 5%                  |                         |                         | C3225C0G2E153J200AA     |                         |
| 22 nF       | 3216 | 1.60 ± 0.20    | ± 10%                 |                         |                         |                         | C3216C0G2A223K160AA     |
|             |      |                | ± 5%                  |                         |                         |                         | C3216C0G2A223J160AA     |
|             |      | 1.60 +0.3/-0.1 | ± 10%                 |                         |                         | C3216C0G2E223K160AA     |                         |
|             |      |                | ± 5%                  |                         |                         | C3216C0G2E223J160AA     |                         |
|             | 3225 | 1.60 ± 0.20    | ± 10%                 |                         |                         | C3225C0G2E223K160AA     | C3225C0G2A223K160AA     |
|             |      |                | ± 5%                  |                         |                         | C3225C0G2E223J160AA     | C3225C0G2A223J160AA     |
|             |      | 2.30 ± 0.20    | ± 10%                 | C3225C0G2J223K230AA     | C3225C0G2W223K230AA     |                         |                         |
|             |      |                | ± 5%                  | C3225C0G2J223J230AA     | C3225C0G2W223J230AA     |                         |                         |
|             | 4532 | 1.60 ± 0.20    | ± 10%                 |                         |                         | C4532C0G2E223K160KA     |                         |
|             |      |                | ± 5%                  |                         |                         | C4532C0G2E223J160KA     |                         |
|             |      | 3.20 ± 0.30    | ± 10%                 | C4532C0G2J223K320KA     |                         |                         |                         |
|             |      |                | ± 5%                  | C4532C0G2J223J320KA     |                         |                         |                         |
| 33 nF       | 3216 | 1.60 +0.3/-0.1 | ± 10%                 |                         |                         |                         | C3216C0G2A333K160AA     |
|             |      |                | ± 5%                  |                         |                         |                         | C3216C0G2A333J160AA     |
|             |      | 2.00 ± 0.20    | ± 10%                 |                         |                         |                         | C3225C0G2A333K200AA     |
|             |      |                | ± 5%                  |                         |                         |                         | C3225C0G2A333J200AA     |
|             | 3225 | 2.30 ± 0.20    | ± 10%                 |                         |                         | C3225C0G2E333K230AA     |                         |
|             |      |                | ± 5%                  |                         |                         | C3225C0G2E333J230AA     |                         |
|             |      | 2.50 ± 0.30    | ± 10%                 | C3225C0G2J333K250AA     | C3225C0G2W333K250AA     |                         |                         |
|             |      |                | ± 5%                  | C3225C0G2J333J250AA     | C3225C0G2W333J250AA     |                         |                         |
|             | 4532 | 2.00 ± 0.20    | ± 10%                 | C4532C0G2J333K200KA     |                         | C4532C0G2E333K200KA     |                         |
|             |      |                | ± 5%                  | C4532C0G2J333J200KA     |                         | C4532C0G2E333J200KA     |                         |
| 47 nF       | 3225 | 2.30 ± 0.20    | ± 10%                 |                         |                         |                         | C3225C0G2A473K230AA     |
|             |      |                | ± 5%                  |                         |                         |                         | C3225C0G2A473J230AA     |
|             |      | 2.50 ± 0.30    | ± 10%                 |                         |                         | C3225C0G2E473K250AA     |                         |
|             |      |                | ± 5%                  |                         |                         | C3225C0G2E473J250AA     |                         |
|             | 4532 | 2.00 ± 0.20    | ± 10%                 |                         |                         |                         | C4532C0G2A473K200KA     |
|             |      |                | ± 5%                  |                         |                         |                         | C4532C0G2A473J200KA     |
|             |      | 2.30 ± 0.20    | ± 10%                 | C4532C0G2W473K230KA     |                         |                         |                         |
|             |      |                | ± 5%                  | C4532C0G2W473J230KA     |                         |                         |                         |
|             | 4532 | 3.20 ± 0.30    | ± 10%                 | C4532C0G2J473K320KA     |                         | C4532C0G2E473K320KA     |                         |
|             |      |                | ± 5%                  | C4532C0G2J473J320KA     |                         | C4532C0G2E473J320KA     |                         |
| 68 nF       | 3225 | 2.30 ± 0.20    | ± 10%                 |                         |                         |                         | C3225C0G2A683K230AA     |
|             |      |                | ± 5%                  |                         |                         |                         | C3225C0G2A683J230AA     |
|             |      | 2.50 ± 0.30    | ± 10%                 |                         |                         | C4532C0G2E683K230KN     |                         |
|             |      |                | ± 5%                  |                         |                         | C4532C0G2E683J230KN     |                         |
|             | 4532 | 2.50 ± 0.30    | ± 10%                 |                         |                         |                         | C4532C0G2A683K250KA     |
|             |      |                | ± 5%                  |                         |                         |                         | C4532C0G2A683J250KA     |
|             |      | 3.20 ± 0.30    | ± 10%                 | C4532C0G2W683K320KA     |                         |                         |                         |
|             |      |                | ± 5%                  | C4532C0G2W683J320KA     |                         |                         |                         |
|             | 5750 | 2.30 ± 0.20    | ± 10%                 | C5750C0G2J683K230KC     |                         |                         |                         |
|             |      |                | ± 5%                  | C5750C0G2J683J230KC     |                         |                         |                         |
| 100 nF      | 4532 | 3.20 ± 0.30    | ± 10%                 |                         |                         | C4532C0G2E104K320KN     | C4532C0G2A104K320KA     |
|             |      |                | ± 5%                  |                         |                         | C4532C0G2E104J320KN     | C4532C0G2A104J320KA     |
|             | 5750 | 2.80 ± 0.30    | ± 10%                 | C5750C0G2J104K280KC     | C5750C0G2W104J280KA     |                         |                         |
|             |      |                | ± 5%                  | C5750C0G2J104J280KC     | C5750C0G2W104K280KA     |                         |                         |
| 150 nF      | 5750 | 2.30 ± 0.20    | ± 10%                 |                         |                         | C5750C0G2E154K230KN     | C5750C0G2A154K230KA     |
|             |      |                | ± 5%                  |                         |                         | C5750C0G2E154J230KN     | C5750C0G2A154J230KA     |



## Capacitance Range Table

### Class 1 (Temperature Compensating)

Temperature Characteristics: CH (-25 to +85°C, 0±60 ppm/°C)

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number          |                         |                         |                         |
|-------------|------|----------------|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|
|             |      |                |                       | Rated Voltage Edc: 630V | Rated Voltage Edc: 450V | Rated Voltage Edc: 250V | Rated Voltage Edc: 100V |
| 1 pF        | 1608 | 0.80 ± 0.10    | ± 0.25pF              |                         |                         |                         | C1608CH2A010C080AA      |
| 1.5 pF      | 1608 | 0.80 ± 0.10    | ± 0.25pF              |                         |                         |                         | C1608CH2A1R5C080AA      |
| 2 pF        | 1608 | 0.80 ± 0.10    | ± 0.25pF              |                         |                         |                         | C1608CH2A020C080AA      |
| 2.2 pF      | 1608 | 0.80 ± 0.10    | ± 0.25pF              |                         |                         |                         | C1608CH2A2R2C080AA      |
| 3 pF        | 1608 | 0.80 ± 0.10    | ± 0.25pF              |                         |                         |                         | C1608CH2A030C080AA      |
| 3.3 pF      | 1608 | 0.80 ± 0.10    | ± 0.25pF              |                         |                         |                         | C1608CH2A3R3C080AA      |
| 4 pF        | 1608 | 0.80 ± 0.10    | ± 0.25pF              |                         |                         |                         | C1608CH2A040C080AA      |
| 4.7 pF      | 1608 | 0.80 ± 0.10    | ± 0.25pF              |                         |                         |                         | C1608CH2A4R7C080AA      |
| 5 pF        | 1608 | 0.80 ± 0.10    | ± 0.25pF              |                         |                         |                         | C1608CH2A050C080AA      |
| 6 pF        | 1608 | 0.80 ± 0.10    | ± 0.50pF              |                         |                         |                         | C1608CH2A060D080AA      |
| 6.8 pF      | 1608 | 0.80 ± 0.10    | ± 0.50pF              |                         |                         |                         | C1608CH2A6R8D080AA      |
| 7 pF        | 1608 | 0.80 ± 0.10    | ± 0.50pF              |                         |                         |                         | C1608CH2A070D080AA      |
| 8 pF        | 1608 | 0.80 ± 0.10    | ± 0.50pF              |                         |                         |                         | C1608CH2A080D080AA      |
| 9 pF        | 1608 | 0.80 ± 0.10    | ± 0.50pF              |                         |                         |                         | C1608CH2A090D080AA      |
| 10 pF       | 1608 | 0.80 ± 0.10    | ± 0.50pF              |                         |                         |                         | C1608CH2A100D080AA      |
| 12 pF       | 1608 | 0.80 ± 0.10    | ± 5%                  |                         |                         |                         | C1608CH2A120J080AA      |
| 15 pF       | 1608 | 0.80 ± 0.10    | ± 5%                  |                         |                         |                         | C1608CH2A150J080AA      |
| 18 pF       | 1608 | 0.80 ± 0.10    | ± 5%                  |                         |                         |                         | C1608CH2A180J080AA      |
| 22 pF       | 1608 | 0.80 ± 0.10    | ± 5%                  |                         |                         |                         | C1608CH2A220J080AA      |
| 27 pF       | 1608 | 0.80 ± 0.10    | ± 5%                  |                         |                         |                         | C1608CH2A270J080AA      |
| 33 pF       | 1608 | 0.80 ± 0.10    | ± 5%                  |                         |                         |                         | C1608CH2A330J080AA      |
| 39 pF       | 1608 | 0.80 ± 0.10    | ± 5%                  |                         |                         |                         | C1608CH2A390J080AA      |
| 47 pF       | 1608 | 0.80 ± 0.10    | ± 5%                  |                         |                         |                         | C1608CH2A470J080AA      |
| 56 pF       | 1608 | 0.80 ± 0.10    | ± 5%                  |                         |                         |                         | C1608CH2A560J080AA      |
| 68 pF       | 1608 | 0.80 ± 0.10    | ± 5%                  |                         |                         |                         | C1608CH2A680J080AA      |
| 82 pF       | 1608 | 0.80 ± 0.10    | ± 5%                  |                         |                         |                         | C1608CH2A820J080AA      |
| 100 pF      | 1005 | 0.50 ± 0.05    | ± 10%                 |                         |                         |                         | C1005CH2A101K050BA      |
|             |      |                | ± 5%                  |                         |                         |                         | C1005CH2A101J050BA      |
|             | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608CH2E101K080AA      | C1608CH2A101K080AA      |
|             |      |                | ± 5%                  |                         |                         | C1608CH2E101J080AA      | C1608CH2A101J080AA      |
|             | 2012 | 0.60 ± 0.15    | ± 10%                 |                         | C2012CH2W101K060AA      |                         |                         |
|             |      |                | ± 5%                  |                         | C2012CH2W101J060AA      |                         |                         |
| 120 pF      | 3216 | 0.60 ± 0.15    | ± 10%                 | C3216CH2J101K060AA      |                         |                         |                         |
|             |      |                | ± 5%                  | C3216CH2J101J060AA      |                         |                         |                         |
|             | 1005 | 0.50 ± 0.05    | ± 10%                 |                         |                         |                         | C1005CH2A121K050BA      |
|             |      |                | ± 5%                  |                         |                         |                         | C1005CH2A121J050BA      |
|             | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608CH2E121K080AA      | C1608CH2A121K080AA      |
|             |      |                | ± 5%                  |                         |                         | C1608CH2E121J080AA      | C1608CH2A121J080AA      |
| 120 pF      | 2012 | 0.60 ± 0.15    | ± 10%                 |                         | C2012CH2W121K060AA      |                         |                         |
|             |      |                | ± 5%                  |                         | C2012CH2W121J060AA      |                         |                         |
|             | 3216 | 0.60 ± 0.15    | ± 10%                 | C3216CH2J121K060AA      |                         |                         |                         |
|             |      |                | ± 5%                  | C3216CH2J121J060AA      |                         |                         |                         |
| 150 pF      | 1005 | 0.50 ± 0.05    | ± 10%                 |                         |                         |                         | C1005CH2A151K050BA      |
|             |      |                | ± 5%                  |                         |                         |                         | C1005CH2A151J050BA      |
|             | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608CH2E151K080AA      | C1608CH2A151K080AA      |
|             |      |                | ± 5%                  |                         |                         | C1608CH2E151J080AA      | C1608CH2A151J080AA      |
|             | 2012 | 0.60 ± 0.15    | ± 10%                 |                         | C2012CH2W151K060AA      |                         |                         |
|             |      |                | ± 5%                  |                         | C2012CH2W151J060AA      |                         |                         |
| 180 pF      | 3216 | 0.60 ± 0.15    | ± 10%                 | C3216CH2J151K060AA      |                         |                         |                         |
|             |      |                | ± 5%                  | C3216CH2J151J060AA      |                         |                         |                         |
|             | 1005 | 0.50 ± 0.05    | ± 10%                 |                         |                         |                         | C1005CH2A181K050BA      |
|             |      |                | ± 5%                  |                         |                         |                         | C1005CH2A181J050BA      |
|             | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608CH2E181K080AA      | C1608CH2A181K080AA      |
|             |      |                | ± 5%                  |                         |                         | C1608CH2E181J080AA      | C1608CH2A181J080AA      |
| 220 pF      | 2012 | 0.60 ± 0.15    | ± 10%                 |                         | C2012CH2W181K060AA      |                         |                         |
|             |      |                | ± 5%                  |                         | C2012CH2W181J060AA      |                         |                         |
|             | 3216 | 0.60 ± 0.15    | ± 10%                 | C3216CH2J181K060AA      |                         |                         |                         |
|             |      |                | ± 5%                  | C3216CH2J181J060AA      |                         |                         |                         |
|             | 1005 | 0.50 ± 0.05    | ± 10%                 |                         |                         |                         | C1005CH2A221K050BA      |
|             |      |                | ± 5%                  |                         |                         |                         | C1005CH2A221J050BA      |
| 220 pF      | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608CH2E221K080AA      | C1608CH2A221K080AA      |
|             |      |                | ± 5%                  |                         |                         | C1608CH2E221J080AA      | C1608CH2A221J080AA      |



## Capacitance Range Table

### Class 1 (Temperature Compensating)

Temperature Characteristics: CH (-25 to +85°C, 0±60 ppm/°C)

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number          |                         |                         |                         |
|-------------|------|----------------|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|
|             |      |                |                       | Rated Voltage Edc: 630V | Rated Voltage Edc: 450V | Rated Voltage Edc: 250V | Rated Voltage Edc: 100V |
| 220 pF      | 2012 | 0.60 ± 0.15    | ± 10%                 |                         | C2012CH2W221K060AA      |                         |                         |
|             |      |                | ± 5%                  |                         | C2012CH2W221J060AA      |                         |                         |
|             | 3216 | 0.60 ± 0.15    | ± 10%                 | C3216CH2J221K060AA      |                         |                         |                         |
|             |      |                | ± 5%                  | C3216CH2J221J060AA      |                         |                         |                         |
| 270 pF      | 1005 | 0.50 ± 0.05    | ± 10%                 |                         |                         |                         | C1005CH2A271K050BA      |
|             |      |                | ± 5%                  |                         |                         |                         | C1005CH2A271J050BA      |
|             | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608CH2E271K080AA      | C1608CH2A271K080AA      |
|             |      |                | ± 5%                  |                         |                         | C1608CH2E271J080AA      | C1608CH2A271J080AA      |
|             | 2012 | 0.60 ± 0.15    | ± 10%                 |                         | C2012CH2W271K060AA      |                         |                         |
|             |      |                | ± 5%                  |                         | C2012CH2W271J060AA      |                         |                         |
|             | 3216 | 0.60 ± 0.15    | ± 10%                 | C3216CH2J271K060AA      |                         |                         |                         |
|             |      |                | ± 5%                  | C3216CH2J271J060AA      |                         |                         |                         |
| 330 pF      | 1005 | 0.50 ± 0.05    | ± 10%                 |                         |                         |                         | C1005CH2A331K050BA      |
|             |      |                | ± 5%                  |                         |                         |                         | C1005CH2A331J050BA      |
|             | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608CH2E331K080AA      | C1608CH2A331K080AA      |
|             |      |                | ± 5%                  |                         |                         | C1608CH2E331J080AA      | C1608CH2A331J080AA      |
|             | 2012 | 0.60 ± 0.15    | ± 10%                 |                         | C2012CH2W331K060AA      |                         |                         |
|             |      |                | ± 5%                  |                         | C2012CH2W331J060AA      |                         |                         |
|             | 3216 | 0.60 ± 0.15    | ± 10%                 | C3216CH2J331K060AA      |                         |                         |                         |
|             |      |                | ± 5%                  | C3216CH2J331J060AA      |                         |                         |                         |
| 390 pF      | 1005 | 0.50 ± 0.05    | ± 10%                 |                         |                         |                         | C1005CH2A391K050BA      |
|             |      |                | ± 5%                  |                         |                         |                         | C1005CH2A391J050BA      |
|             | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608CH2E391K080AA      | C1608CH2A391K080AA      |
|             |      |                | ± 5%                  |                         |                         | C1608CH2E391J080AA      | C1608CH2A391J080AA      |
|             | 2012 | 0.60 ± 0.15    | ± 10%                 |                         | C2012CH2W391K060AA      |                         |                         |
|             |      |                | ± 5%                  |                         | C2012CH2W391J060AA      |                         |                         |
|             | 3216 | 0.60 ± 0.15    | ± 10%                 | C3216CH2J391K060AA      |                         |                         |                         |
|             |      |                | ± 5%                  | C3216CH2J391J060AA      |                         |                         |                         |
| 470 pF      | 1005 | 0.50 ± 0.05    | ± 10%                 |                         |                         |                         | C1005CH2A471K050BA      |
|             |      |                | ± 5%                  |                         |                         |                         | C1005CH2A471J050BA      |
|             | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608CH2E471K080AA      | C1608CH2A471K080AA      |
|             |      |                | ± 5%                  |                         |                         | C1608CH2E471J080AA      | C1608CH2A471J080AA      |
|             | 2012 | 0.60 ± 0.15    | ± 10%                 |                         | C2012CH2W471K060AA      |                         |                         |
|             |      |                | ± 5%                  |                         | C2012CH2W471J060AA      |                         |                         |
|             | 3216 | 0.85 ± 0.15    | ± 10%                 | C3216CH2J471K085AA      |                         |                         |                         |
|             |      |                | ± 5%                  | C3216CH2J471J085AA      |                         |                         |                         |
| 560 pF      | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608CH2E561K080AA      | C1608CH2A561K080AA      |
|             |      |                | ± 5%                  |                         |                         | C1608CH2E561J080AA      | C1608CH2A561J080AA      |
|             | 2012 | 0.60 ± 0.15    | ± 10%                 |                         | C2012CH2W561K060AA      |                         |                         |
|             |      |                | ± 5%                  |                         | C2012CH2W561J060AA      |                         |                         |
|             | 3216 | 0.85 ± 0.15    | ± 10%                 | C3216CH2J561K085AA      |                         |                         |                         |
|             |      |                | ± 5%                  | C3216CH2J561J085AA      |                         |                         |                         |
| 680 pF      | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608CH2E681K080AA      | C1608CH2A681K080AA      |
|             |      |                | ± 5%                  |                         |                         | C1608CH2E681J080AA      | C1608CH2A681J080AA      |
|             | 2012 | 0.60 ± 0.15    | ± 10%                 |                         | C2012CH2W681K060AA      |                         |                         |
|             |      |                | ± 5%                  |                         | C2012CH2W681J060AA      |                         |                         |
|             | 3216 | 0.85 ± 0.15    | ± 10%                 | C3216CH2J681K085AA      |                         |                         |                         |
|             |      |                | ± 5%                  | C3216CH2J681J085AA      |                         |                         |                         |
| 820 pF      | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608CH2E821K080AA      | C1608CH2A821K080AA      |
|             |      |                | ± 5%                  |                         |                         | C1608CH2E821J080AA      | C1608CH2A821J080AA      |
|             | 2012 | 0.60 ± 0.15    | ± 10%                 |                         | C2012CH2W821K060AA      | C2012CH2E821K060AA      |                         |
|             |      |                | ± 5%                  |                         | C2012CH2W821J060AA      | C2012CH2E821J060AA      |                         |
|             | 3216 | 0.85 ± 0.15    | ± 10%                 | C3216CH2J821K085AA      |                         |                         |                         |
|             |      |                | ± 5%                  | C3216CH2J821J085AA      |                         |                         |                         |
| 1 nF        | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608CH2E102K080AA      | C1608CH2A102K080AA      |
|             |      |                | ± 5%                  |                         |                         | C1608CH2E102J080AA      | C1608CH2A102J080AA      |
|             | 2012 | 0.60 ± 0.15    | ± 10%                 |                         | C2012CH2W102K060AA      |                         | C2012CH2A102J060AA      |
|             |      |                | ± 5%                  |                         | C2012CH2W102J060AA      |                         |                         |
|             |      | 0.85 ± 0.15    | ± 10%                 |                         |                         | C2012CH2E102K085AA      |                         |
|             |      |                | ± 5%                  |                         |                         | C2012CH2E102J085AA      |                         |
|             | 3216 | 0.85 ± 0.15    | ± 10%                 | C3216CH2J102K085AA      |                         |                         |                         |
|             |      |                | ± 5%                  | C3216CH2J102J085AA      |                         |                         |                         |



## Capacitance Range Table

### Class 1 (Temperature Compensating)

Temperature Characteristics: CH (-25 to +85°C, 0±60 ppm/°C)

| Capacitance | Size | Thickness (mm)   | Capacitance Tolerance | Catalog Number          |                         |                         |                         |
|-------------|------|------------------|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|
|             |      |                  |                       | Rated Voltage Edc: 630V | Rated Voltage Edc: 450V | Rated Voltage Edc: 250V | Rated Voltage Edc: 100V |
| 1.2 nF      | 1608 | 0.80 ± 0.10      | ± 10%                 |                         |                         | C1608CH2E122K080AA      | C1608CH2A122K080AA      |
|             |      |                  | ± 5%                  |                         |                         | C1608CH2E122J080AA      | C1608CH2A122J080AA      |
|             |      | 0.60 ± 0.15      | ± 10%                 |                         | C2012CH2W122K060AA      |                         |                         |
|             |      |                  | ± 5%                  |                         | C2012CH2W122J060AA      |                         | C2012CH2A122J060AA      |
|             | 2012 | 0.85 ± 0.15      | ± 10%                 |                         |                         | C2012CH2E122K085AA      |                         |
|             |      |                  | ± 5%                  |                         |                         | C2012CH2E122J085AA      |                         |
|             |      | 0.85 ± 0.15      | ± 10%                 | C3216CH2J122K085AA      |                         |                         |                         |
|             |      |                  | ± 5%                  | C3216CH2J122J085AA      |                         |                         |                         |
| 1.5 nF      | 1608 | 0.80 ± 0.10      | ± 10%                 |                         |                         | C1608CH2E152K080AA      | C1608CH2A152K080AA      |
|             |      |                  | ± 5%                  |                         |                         | C1608CH2E152J080AA      | C1608CH2A152J080AA      |
|             |      | 0.60 ± 0.15      | ± 10%                 |                         |                         |                         | C2012CH2A152K060AA      |
|             |      |                  | ± 5%                  |                         |                         |                         | C2012CH2A152J060AA      |
|             | 2012 | 0.85 ± 0.15      | ± 10%                 |                         | C2012CH2W152K085AA      | C2012CH2E152K085AA      |                         |
|             |      |                  | ± 5%                  |                         | C2012CH2W152J085AA      | C2012CH2E152J085AA      |                         |
|             |      | 1.15 ± 0.15      | ± 10%                 | C3216CH2J152K115AA      |                         |                         |                         |
|             |      |                  | ± 5%                  | C3216CH2J152J115AA      |                         |                         |                         |
| 1.8 nF      | 1608 | 0.80 ± 0.10      | ± 10%                 |                         |                         | C1608CH2E182K080AA      | C1608CH2A182K080AA      |
|             |      |                  | ± 5%                  |                         |                         | C1608CH2E182J080AA      | C1608CH2A182J080AA      |
|             |      | 0.85 ± 0.15      | ± 10%                 |                         | C2012CH2W182K085AA      |                         | C2012CH2A182K085AA      |
|             |      |                  | ± 5%                  |                         | C2012CH2W182J085AA      |                         | C2012CH2A182J085AA      |
|             | 2012 | 1.25 ± 0.20      | ± 10%                 |                         |                         | C2012CH2E182K125AA      |                         |
|             |      |                  | ± 5%                  |                         |                         | C2012CH2E182J125AA      |                         |
|             |      | 1.15 ± 0.15      | ± 10%                 | C3216CH2J182K115AA      |                         |                         |                         |
|             |      |                  | ± 5%                  | C3216CH2J182J115AA      |                         |                         |                         |
| 2.2 nF      | 1608 | 0.80 ± 0.10      | ± 10%                 |                         |                         |                         | C1608CH2A222K080AA      |
|             |      |                  | ± 5%                  |                         |                         |                         | C1608CH2A222J080AA      |
|             |      | 0.80 ± 0.15/-0.1 | ± 10%                 |                         |                         | C1608CH2E222K080AA      |                         |
|             |      |                  | ± 5%                  |                         |                         | C1608CH2E222J080AA      |                         |
|             | 2012 | 0.85 ± 0.15      | ± 10%                 |                         | C2012CH2W222K085AA      |                         | C2012CH2A222K085AA      |
|             |      |                  | ± 5%                  |                         | C2012CH2W222J085AA      |                         | C2012CH2A222J085AA      |
|             |      | 1.25 ± 0.20      | ± 10%                 |                         |                         | C2012CH2E222K125AA      |                         |
|             |      |                  | ± 5%                  |                         |                         | C2012CH2E222J125AA      |                         |
| 2.7 nF      | 1608 | 0.80 ± 0.15/-0.1 | ± 10%                 |                         |                         |                         | C1608CH2A272K080AA      |
|             |      |                  | ± 5%                  |                         |                         |                         | C1608CH2A272J080AA      |
|             |      | 1.25 ± 0.20      | ± 10%                 |                         | C2012CH2W272K125AA      | C2012CH2E272K125AA      | C2012CH2A272K125AA      |
|             |      |                  | ± 5%                  |                         | C2012CH2W272J125AA      | C2012CH2E272J125AA      | C2012CH2A272J125AA      |
|             | 2012 | 1.60 ± 0.20      | ± 10%                 | C3216CH2J272K160AA      |                         |                         |                         |
|             |      |                  | ± 5%                  | C3216CH2J272J160AA      |                         |                         |                         |
|             |      | 0.80 ± 0.15/-0.1 | ± 10%                 |                         |                         |                         | C1608CH2A332K080AA      |
|             |      |                  | ± 5%                  |                         |                         |                         | C1608CH2A332J080AA      |
| 3.3 nF      | 1608 | 0.85 ± 0.15      | ± 10%                 |                         |                         | C2012CH2E332K085AA      |                         |
|             |      |                  | ± 5%                  |                         |                         | C2012CH2E332J085AA      |                         |
|             |      | 1.25 ± 0.20      | ± 10%                 |                         | C2012CH2W332K125AA      |                         | C2012CH2A332K125AA      |
|             |      |                  | ± 5%                  |                         | C2012CH2W332J125AA      |                         | C2012CH2A332J125AA      |
|             | 2012 | 0.85 ± 0.15      | ± 10%                 |                         |                         | C3216CH2E332K085AA      |                         |
|             |      |                  | ± 5%                  |                         |                         | C3216CH2E332J085AA      |                         |
|             |      | 1.60 ± 0.20      | ± 10%                 | C3216CH2J332K160AA      |                         |                         |                         |
|             |      |                  | ± 5%                  | C3216CH2J332J160AA      |                         |                         |                         |
| 3.9 nF      | 2012 | 1.25 ± 0.20      | ± 10%                 |                         | C2012CH2W392K125AA      | C2012CH2E392K125AA      | C2012CH2A392K125AA      |
|             |      |                  | ± 5%                  |                         | C2012CH2W392J125AA      | C2012CH2E392J125AA      | C2012CH2A392J125AA      |
|             |      | 0.60 ± 0.15      | ± 10%                 |                         |                         |                         | C3216CH2A392K060AA      |
|             |      |                  | ± 5%                  |                         |                         |                         | C3216CH2A392J060AA      |
|             | 3216 | 0.85 ± 0.15      | ± 10%                 | C3216CH2J392K085AA      |                         |                         |                         |
|             |      |                  | ± 5%                  | C3216CH2J392J085AA      |                         |                         |                         |
|             |      | 1.15 ± 0.15      | ± 10%                 |                         |                         | C3216CH2E392K115AA      |                         |
|             |      |                  | ± 5%                  |                         |                         | C3216CH2E392J115AA      |                         |
| 4.7 nF      | 2012 | 1.25 ± 0.20      | ± 10%                 |                         | C2012CH2W472K125AA      | C2012CH2E472K125AA      | C2012CH2A472K125AA      |
|             |      |                  | ± 5%                  |                         | C2012CH2W472J125AA      | C2012CH2E472J125AA      | C2012CH2A472J125AA      |



## Capacitance Range Table

### Class 1 (Temperature Compensating)

Temperature Characteristics: CH (-25 to +85°C, 0±60 ppm/°C)

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number          |                         |                         |                         |
|-------------|------|----------------|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|
|             |      |                |                       | Rated Voltage Edc: 630V | Rated Voltage Edc: 450V | Rated Voltage Edc: 250V | Rated Voltage Edc: 100V |
| 4.7 nF      | 3216 | 0.85 ± 0.15    | ± 10%                 | C3216CH2J472K085AA      |                         |                         | C3216CH2A472K085AA      |
|             |      |                | ± 5%                  | C3216CH2J472J085AA      |                         |                         | C3216CH2A472J085AA      |
|             |      | 1.15 ± 0.15    | ± 10%                 |                         |                         | C3216CH2E472K115AA      |                         |
|             |      |                | ± 5%                  |                         |                         | C3216CH2E472J115AA      |                         |
|             | 3225 | 1.60 ± 0.20    | ± 10%                 | C3225CH2J472K160AA      |                         |                         |                         |
|             |      |                | ± 5%                  | C3225CH2J472J160AA      |                         |                         |                         |
| 5.6 nF      | 2012 | 1.25 ± 0.20    | ± 10%                 |                         | C2012CH2W562K125AA      | C2012CH2E562K125AA      | C2012CH2A562K125AA      |
|             |      |                | ± 5%                  |                         | C2012CH2W562J125AA      | C2012CH2E562J125AA      | C2012CH2A562J125AA      |
|             | 3216 | 0.85 ± 0.15    | ± 10%                 |                         |                         |                         | C3216CH2A562K085AA      |
|             |      |                | ± 5%                  |                         |                         |                         | C3216CH2A562J085AA      |
|             |      | 1.15 ± 0.15    | ± 10%                 | C3216CH2J562K115AA      |                         | C3216CH2E562K115AA      |                         |
|             |      |                | ± 5%                  | C3216CH2J562J115AA      |                         | C3216CH2E562J115AA      |                         |
|             | 3225 | 1.60 ± 0.20    | ± 10%                 | C3225CH2J562K160AA      |                         |                         |                         |
|             |      |                | ± 5%                  | C3225CH2J562J160AA      |                         |                         |                         |
| 6.8 nF      | 2012 | 1.25 ± 0.20    | ± 10%                 |                         |                         | C2012CH2E682K125AA      | C2012CH2A682K125AA      |
|             |      |                | ± 5%                  |                         |                         | C2012CH2E682J125AA      | C2012CH2A682J125AA      |
|             | 3216 | 1.15 ± 0.15    | ± 10%                 | C3216CH2J682K115AA      | C3216CH2W682K115AA      |                         | C3216CH2A682K115AA      |
|             |      |                | ± 5%                  | C3216CH2J682J115AA      | C3216CH2W682J115AA      |                         | C3216CH2A682J115AA      |
|             |      | 1.60 ± 0.20    | ± 10%                 |                         |                         | C3216CH2E682K160AA      |                         |
|             |      |                | ± 5%                  |                         |                         | C3216CH2E682J160AA      |                         |
|             | 3225 | 2.00 ± 0.20    | ± 10%                 | C3225CH2J682K200AA      |                         |                         |                         |
|             |      |                | ± 5%                  | C3225CH2J682J200AA      |                         |                         |                         |
| 8.2 nF      | 2012 | 1.25 ± 0.20    | ± 10%                 |                         |                         | C2012CH2E822K125AA      | C2012CH2A822K125AA      |
|             |      |                | ± 5%                  |                         |                         | C2012CH2E822J125AA      | C2012CH2A822J125AA      |
|             | 3216 | 1.15 ± 0.15    | ± 10%                 |                         | C3216CH2W822K115AA      |                         | C3216CH2A822K115AA      |
|             |      |                | ± 5%                  |                         | C3216CH2W822J115AA      |                         | C3216CH2A822J115AA      |
|             |      | 1.60 ± 0.20    | ± 10%                 | C3216CH2J822K160AA      |                         | C3216CH2E822K160AA      |                         |
|             |      |                | ± 5%                  | C3216CH2J822J160AA      |                         | C3216CH2E822J160AA      |                         |
|             | 3225 | 1.25 ± 0.20    | ± 10%                 | C3225CH2J822K125AA      |                         |                         |                         |
|             |      |                | ± 5%                  | C3225CH2J822J125AA      |                         |                         |                         |
| 10 nF       | 4532 | 1.60 ± 0.20    | ± 10%                 | C4532CH2J822K160KA      |                         |                         |                         |
|             |      |                | ± 5%                  | C4532CH2J822J160KA      |                         |                         |                         |
|             | 2012 | 1.25 ± 0.20    | ± 10%                 |                         |                         | C2012CH2E103K125AA      | C2012CH2A103K125AA      |
|             |      |                | ± 5%                  |                         |                         | C2012CH2E103J125AA      | C2012CH2A103J125AA      |
|             |      | 1.15 ± 0.15    | ± 10%                 |                         |                         | C3216CH2E103K115AA      | C3216CH2A103K115AA      |
|             |      |                | ± 5%                  |                         |                         | C3216CH2E103J115AA      | C3216CH2A103J115AA      |
|             | 3216 | 1.60 ± 0.20    | ± 10%                 | C3216CH2J103K160AA      | C3216CH2W103K160AA      |                         |                         |
|             |      |                | ± 5%                  | C3216CH2J103J160AA      | C3216CH2W103J160AA      |                         |                         |
| 15 nF       | 3225 | 1.25 ± 0.20    | ± 10%                 | C3225CH2J103K125AA      |                         |                         |                         |
|             |      |                | ± 5%                  | C3225CH2J103J125AA      |                         |                         |                         |
|             |      | 1.60 ± 0.20    | ± 10%                 |                         |                         | C3225CH2E103K160AA      |                         |
|             |      |                | ± 5%                  |                         |                         | C3225CH2E103J160AA      |                         |
|             | 4532 | 1.60 ± 0.20    | ± 10%                 | C4532CH2J103K160KA      |                         |                         |                         |
|             |      |                | ± 5%                  | C4532CH2J103J160KA      |                         |                         |                         |
|             | 3216 | 1.15 ± 0.15    | ± 10%                 |                         |                         |                         | C3216CH2A153K115AA      |
|             |      |                | ± 5%                  |                         |                         |                         | C3216CH2A153J115AA      |
|             |      | 1.60 ± 0.20    | ± 10%                 |                         |                         | C3216CH2E153K160AA      |                         |
|             |      |                | ± 5%                  |                         |                         | C3216CH2E153J160AA      |                         |
| 22 nF       | 3216 | 1.60 ± 0.20    | ± 10%                 |                         |                         |                         |                         |
|             |      |                | ± 5%                  |                         |                         |                         |                         |
|             |      | 1.60 +0.3/-0.1 | ± 10%                 |                         | C3216CH2W153K160AA      |                         |                         |
|             |      |                | ± 5%                  |                         | C3216CH2W153J160AA      |                         |                         |
|             | 3225 | 1.25 ± 0.20    | ± 10%                 |                         |                         |                         | C3225CH2A153K125AA      |
|             |      |                | ± 5%                  |                         |                         |                         | C3225CH2A153J125AA      |
|             |      | 1.60 ± 0.20    | ± 10%                 | C3225CH2J153K160AA      |                         |                         |                         |
|             |      |                | ± 5%                  | C3225CH2J153J160AA      |                         |                         |                         |
|             | 4532 | 2.50 ± 0.30    | ± 10%                 | C4532CH2J153K250KA      |                         |                         |                         |
|             |      |                | ± 5%                  | C4532CH2J153J250KA      |                         |                         |                         |



## Capacitance Range Table

### Class 1 (Temperature Compensating)

Temperature Characteristics: CH (-25 to +85°C, 0±60 ppm/°C)

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number          |                         |                         |
|-------------|------|----------------|-----------------------|-------------------------|-------------------------|-------------------------|
|             |      |                |                       | Rated Voltage Edc: 630V | Rated Voltage Edc: 450V | Rated Voltage Edc: 250V |
| 22 nF       | 3225 | 1.60 ± 0.20    | ± 10%                 |                         |                         | C3225CH2E223K160AA      |
|             |      |                | ± 5%                  |                         |                         | C3225CH2E223J160AA      |
|             |      | 2.30 ± 0.20    | ± 10%                 | C3225CH2J223K230AA      | C3225CH2W223K230AA      |                         |
|             |      |                | ± 5%                  | C3225CH2J223J230AA      | C3225CH2W223J230AA      |                         |
|             | 4532 | 1.60 ± 0.20    | ± 10%                 |                         |                         | C4532CH2E223K160KA      |
|             |      |                | ± 5%                  |                         |                         | C4532CH2E223J160KA      |
| 33 nF       | 3216 | 1.60 +0.3/-0.1 | ± 10%                 |                         |                         | C3216CH2A333K160AA      |
|             |      |                | ± 5%                  |                         |                         | C3216CH2A333J160AA      |
|             |      | 2.00 ± 0.20    | ± 10%                 |                         |                         | C3225CH2A333K200AA      |
|             |      |                | ± 5%                  |                         |                         | C3225CH2A333J200AA      |
|             | 3225 | 2.30 ± 0.20    | ± 10%                 |                         |                         | C3225CH2E333K230AA      |
|             |      |                | ± 5%                  |                         |                         | C3225CH2E333J230AA      |
|             |      | 2.50 ± 0.30    | ± 10%                 | C3225CH2J333K250AA      | C3225CH2W333K250AA      |                         |
|             |      |                | ± 5%                  | C3225CH2J333J250AA      | C3225CH2W333J250AA      |                         |
|             | 4532 | 2.00 ± 0.20    | ± 10%                 |                         |                         | C4532CH2E333K200KA      |
|             |      |                | ± 5%                  |                         |                         | C4532CH2E333J200KA      |
| 47 nF       | 3225 | 2.30 ± 0.20    | ± 10%                 |                         |                         | C3225CH2A473K230AA      |
|             |      |                | ± 5%                  |                         |                         | C3225CH2A473J230AA      |
|             |      | 2.50 ± 0.30    | ± 10%                 |                         |                         | C3225CH2E473K250AA      |
|             |      |                | ± 5%                  |                         |                         | C3225CH2E473J250AA      |
|             | 4532 | 2.00 ± 0.20    | ± 10%                 |                         |                         | C4532CH2A473K200KA      |
|             |      |                | ± 5%                  |                         |                         | C4532CH2A473J200KA      |
|             |      | 2.30 ± 0.20    | ± 10%                 | C4532CH2W473K230KA      | C4532CH2W473J230KA      |                         |
|             |      |                | ± 5%                  |                         |                         |                         |
|             |      | 3.20 ± 0.30    | ± 10%                 | C4532CH2J473K320KA      | C4532CH2E473K320KA      |                         |
|             |      |                | ± 5%                  | C4532CH2J473J320KA      | C4532CH2E473J320KA      |                         |
| 68 nF       | 3225 | 2.30 ± 0.20    | ± 10%                 |                         |                         | C3225CH2A683K230AA      |
|             |      |                | ± 5%                  |                         |                         | C3225CH2A683J230AA      |
|             |      | 2.30 ± 0.20    | ± 10%                 |                         |                         | C4532CH2E683K230KN      |
|             |      |                | ± 5%                  |                         |                         | C4532CH2E683J230KN      |
|             | 4532 | 2.50 ± 0.30    | ± 10%                 |                         |                         | C4532CH2A683K250KA      |
|             |      |                | ± 5%                  |                         |                         | C4532CH2A683J250KA      |
|             |      | 3.20 ± 0.30    | ± 10%                 | C4532CH2W683K320KA      |                         |                         |
|             |      |                | ± 5%                  | C4532CH2W683J320KA      |                         |                         |
|             | 5750 | 2.30 ± 0.20    | ± 10%                 | C5750CH2J683K230KC      |                         |                         |
|             |      |                | ± 5%                  | C5750CH2J683J230KC      |                         |                         |
| 100 nF      | 4532 | 3.20 ± 0.30    | ± 10%                 |                         |                         | C4532CH2E104K320KN      |
|             |      |                | ± 5%                  |                         |                         | C4532CH2E104J320KN      |
|             | 5750 | 2.80 ± 0.30    | ± 10%                 | C5750CH2J104K280KC      | C5750CH2W104J280KA      |                         |
|             |      |                | ± 5%                  | C5750CH2J104J280KC      | C5750CH2W104K280KA      |                         |
| 150 nF      | 5750 | 2.30 ± 0.20    | ± 10%                 |                         |                         | C5750CH2E154K230KN      |
|             |      |                | ± 5%                  |                         |                         | C5750CH2E154J230KN      |

### Class 2 (Temperature Stable)

Temperature Characteristics: JB (-25 to +85°C, ±10%)

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number          |                         |                         |
|-------------|------|----------------|-----------------------|-------------------------|-------------------------|-------------------------|
|             |      |                |                       | Rated Voltage Edc: 630V | Rated Voltage Edc: 250V | Rated Voltage Edc: 100V |
| 1 nF        | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608JB2A102K080AA      |
|             |      |                | ± 20%                 |                         |                         | C1608JB2A102M080AA      |
|             | 2012 | 0.85 ± 0.15    | ± 10%                 |                         | C2012JB2E102K085AA      | C2012JB2A102K085AA      |
|             |      |                | ± 20%                 |                         | C2012JB2E102M085AA      | C2012JB2A102M085AA      |
|             | 3216 | 1.15 ± 0.10    | ± 10%                 | C3216JB2J102K115AA      |                         |                         |
|             |      |                | ± 20%                 | C3216JB2J102M115AA      |                         |                         |
| 1.5 nF      | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608JB2A152K080AA      |
|             |      |                | ± 20%                 |                         |                         | C1608JB2A152M080AA      |
|             | 2012 | 0.85 ± 0.15    | ± 10%                 |                         | C2012JB2E152K085AA      | C2012JB2A152K085AA      |
|             |      |                | ± 20%                 |                         | C2012JB2E152M085AA      | C2012JB2A152M085AA      |



## Capacitance Range Table

### Class 2 (Temperature Stable)

Temperature Characteristics: JB (-25 to +85°C, ±10%)

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number          |                         |                         |
|-------------|------|----------------|-----------------------|-------------------------|-------------------------|-------------------------|
|             |      |                |                       | Rated Voltage Edc: 630V | Rated Voltage Edc: 250V | Rated Voltage Edc: 100V |
| 1.5 nF      | 3216 | 1.15 ± 0.10    | ± 10%                 | C3216JB2J152K115AA      |                         |                         |
|             |      |                | ± 20%                 | C3216JB2J152M115AA      |                         |                         |
| 2.2 nF      | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608JB2A222K080AA      |
|             |      |                | ± 20%                 |                         |                         | C1608JB2A222M080AA      |
|             | 2012 | 0.85 ± 0.15    | ± 10%                 |                         | C2012JB2E222K085AA      | C2012JB2A222K085AA      |
|             |      |                | ± 20%                 |                         | C2012JB2E222M085AA      | C2012JB2A222M085AA      |
|             | 3216 | 1.15 ± 0.10    | ± 10%                 | C3216JB2J222K115AA      |                         |                         |
|             |      |                | ± 20%                 | C3216JB2J222M115AA      |                         |                         |
| 3.3 nF      | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608JB2A332K080AA      |
|             |      |                | ± 20%                 |                         |                         | C1608JB2A332M080AA      |
|             | 2012 | 0.85 ± 0.15    | ± 10%                 |                         | C2012JB2E332K085AA      | C2012JB2A332K085AA      |
|             |      |                | ± 20%                 |                         | C2012JB2E332M085AA      | C2012JB2A332M085AA      |
|             | 3216 | 1.15 ± 0.10    | ± 10%                 | C3216JB2J332K115AA      |                         |                         |
|             |      |                | ± 20%                 | C3216JB2J332M115AA      |                         |                         |
| 4.7 nF      | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608JB2A472K080AA      |
|             |      |                | ± 20%                 |                         |                         | C1608JB2A472M080AA      |
|             | 2012 | 0.85 ± 0.15    | ± 10%                 |                         | C2012JB2E472K085AA      | C2012JB2A472K085AA      |
|             |      |                | ± 20%                 |                         | C2012JB2E472M085AA      | C2012JB2A472M085AA      |
|             | 3216 | 1.15 ± 0.10    | ± 10%                 | C3216JB2J472K115AA      |                         |                         |
|             |      |                | ± 20%                 | C3216JB2J472M115AA      |                         |                         |
| 6.8 nF      | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608JB2A682K080AA      |
|             |      |                | ± 20%                 |                         |                         | C1608JB2A682M080AA      |
|             | 2012 | 0.85 ± 0.15    | ± 10%                 |                         |                         | C2012JB2A682K085AA      |
|             |      |                | ± 20%                 |                         |                         | C2012JB2A682M085AA      |
|             |      | 1.25 ± 0.20    | ± 10%                 |                         | C2012JB2E682K125AA      |                         |
|             |      |                | ± 20%                 |                         | C2012JB2E682M125AA      |                         |
|             | 3216 | 1.15 ± 0.10    | ± 10%                 | C3216JB2J682K115AA      |                         |                         |
|             |      |                | ± 20%                 | C3216JB2J682M115AA      |                         |                         |
| 10 nF       | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608JB2A103K080AA      |
|             |      |                | ± 20%                 |                         |                         | C1608JB2A103M080AA      |
|             | 2012 | 0.85 ± 0.15    | ± 10%                 |                         |                         | C2012JB2A103K085AA      |
|             |      |                | ± 20%                 |                         |                         | C2012JB2A103M085AA      |
|             |      | 1.25 ± 0.20    | ± 10%                 |                         | C2012JB2E103K125AA      |                         |
|             |      |                | ± 20%                 |                         | C2012JB2E103M125AA      |                         |
|             | 3216 | 1.15 ± 0.10    | ± 10%                 | C3216JB2J103K115AA      |                         |                         |
|             |      |                | ± 20%                 | C3216JB2J103M115AA      |                         |                         |
| 15 nF       | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608JB2A153K080AA      |
|             |      |                | ± 20%                 |                         |                         | C1608JB2A153M080AA      |
|             | 2012 | 1.25 ± 0.20    | ± 10%                 |                         | C2012JB2E153K125AA      | C2012JB2A153K125AA      |
|             |      |                | ± 20%                 |                         | C2012JB2E153M125AA      | C2012JB2A153M125AA      |
|             |      | 1.15 ± 0.10    | ± 10%                 |                         | C3216JB2E153K115AA      |                         |
|             |      |                | ± 20%                 |                         | C3216JB2E153M115AA      |                         |
|             | 3216 | 1.30 ± 0.10    | ± 10%                 | C3216JB2J153K130AA      |                         |                         |
|             |      |                | ± 20%                 | C3216JB2J153M130AA      |                         |                         |
| 22 nF       | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608JB2A223K080AA      |
|             |      |                | ± 20%                 |                         |                         | C1608JB2A223M080AA      |
|             | 2012 | 1.25 ± 0.20    | ± 10%                 |                         | C2012JB2E223K125AA      | C2012JB2A223K125AA      |
|             |      |                | ± 20%                 |                         | C2012JB2E223M125AA      | C2012JB2A223M125AA      |
|             |      | 1.15 ± 0.10    | ± 10%                 |                         | C3216JB2E223K115AA      |                         |
|             |      |                | ± 20%                 |                         | C3216JB2E223M115AA      |                         |
|             | 3216 | 1.30 ± 0.10    | ± 10%                 | C3216JB2J223K130AA      |                         |                         |
|             |      |                | ± 20%                 | C3216JB2J223M130AA      |                         |                         |
| 33 nF       | 2012 | 1.25 ± 0.20    | ± 10%                 |                         |                         | C2012JB2A333K125AA      |
|             |      |                | ± 20%                 |                         |                         | C2012JB2A333M125AA      |
|             | 3216 | 1.15 ± 0.10    | ± 10%                 |                         |                         | C3216JB2A333K115AA      |
|             |      |                | ± 20%                 |                         |                         | C3216JB2A333M115AA      |
|             |      | 1.60 ± 0.20    | ± 10%                 | C3216JB2J333K160AA      | C3216JB2E333K160AA      |                         |
|             |      |                | ± 20%                 | C3216JB2J333M160AA      | C3216JB2E333M160AA      |                         |
| 47 nF       | 2012 | 1.25 ± 0.20    | ± 10%                 |                         |                         | C2012JB2A473K125AA      |
|             |      |                | ± 20%                 |                         |                         | C2012JB2A473M125AA      |



## Capacitance Range Table

### Class 2 (Temperature Stable)

Temperature Characteristics: JB (-25 to +85°C, ±10%)

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number          |                         |                         |
|-------------|------|----------------|-----------------------|-------------------------|-------------------------|-------------------------|
|             |      |                |                       | Rated Voltage Edc: 630V | Rated Voltage Edc: 250V | Rated Voltage Edc: 100V |
| 47 nF       | 3216 | 1.15 ± 0.10    | ± 10%                 |                         |                         | C3216JB2A473K115AA      |
|             |      |                | ± 20%                 |                         |                         | C3216JB2A473M115AA      |
|             |      | 1.60 ± 0.20    | ± 10%                 |                         | C3216JB2E473K160AA      |                         |
|             |      |                | ± 20%                 |                         | C3216JB2E473M160AA      |                         |
|             | 3225 | 2.00 ± 0.20    | ± 10%                 | C3225JB2J473K200AA      |                         |                         |
|             |      |                | ± 20%                 | C3225JB2J473M200AA      |                         |                         |
| 68 nF       | 2012 | 0.85 ± 0.15    | ± 10%                 |                         |                         | C2012JB2A683K085AA      |
|             |      |                | ± 20%                 |                         |                         | C2012JB2A683M085AA      |
|             | 3216 | 1.60 ± 0.20    | ± 10%                 |                         | C3216JB2E683K160AA      | C3216JB2A683K160AA      |
|             |      |                | ± 20%                 |                         | C3216JB2E683M160AA      | C3216JB2A683M160AA      |
|             | 3225 | 2.00 ± 0.20    | ± 10%                 | C3225JB2J683K200AA      |                         |                         |
|             |      |                | ± 20%                 | C3225JB2J683M200AA      |                         |                         |
| 100 nF      | 4532 | 1.60 ± 0.20    | ± 10%                 | C4532JB2J683K160KA      |                         |                         |
|             |      |                | ± 20%                 | C4532JB2J683M160KA      |                         |                         |
|             | 2012 | 1.25 ± 0.20    | ± 10%                 |                         |                         | C2012JB2A104K125AA      |
|             |      |                | ± 20%                 |                         |                         | C2012JB2A104M125AA      |
|             |      |                | ± 10%                 |                         | C3216JB2E104K160AA      | C3216JB2A104K160AA      |
|             |      |                | ± 20%                 |                         | C3216JB2E104M160AA      | C3216JB2A104M160AA      |
| 150 nF      | 3225 | 2.00 ± 0.20    | ± 10%                 |                         | C3225JB2E104K200AA      |                         |
|             |      |                | ± 20%                 |                         | C3225JB2E104M200AA      |                         |
|             | 4532 | 1.60 ± 0.20    | ± 10%                 | C4532JB2J104K230KA      |                         |                         |
|             |      |                | ± 20%                 | C4532JB2J104M230KA      |                         |                         |
|             | 3216 | 1.60 ± 0.20    | ± 10%                 |                         |                         | C3216JB2A154K160AA      |
|             |      |                | ± 20%                 |                         |                         | C3216JB2A154M160AA      |
| 220 nF      | 3225 | 2.00 ± 0.20    | ± 10%                 |                         | C3225JB2E154K200AA      |                         |
|             |      |                | ± 20%                 |                         | C3225JB2E154M200AA      |                         |
|             | 4532 | 1.60 ± 0.20    | ± 10%                 |                         | C4532JB2E154K160KA      |                         |
|             |      |                | ± 20%                 |                         | C4532JB2E154M160KA      |                         |
|             | 5750 | 1.60 ± 0.20    | ± 10%                 | C5750JB2J154K160KA      |                         |                         |
|             |      |                | ± 20%                 | C5750JB2J154M160KA      |                         |                         |
| 330 nF      | 3216 | 1.15 ± 0.10    | ± 10%                 |                         |                         | C3216JB2A224K115AA      |
|             |      |                | ± 20%                 |                         |                         | C3216JB2A224M115AA      |
|             | 3225 | 2.00 ± 0.20    | ± 10%                 |                         | C3225JB2E224K200AA      |                         |
|             |      |                | ± 20%                 |                         | C3225JB2E224M200AA      |                         |
|             | 4532 | 2.30 ± 0.20    | ± 10%                 |                         | C4532JB2E224K230KA      |                         |
|             |      |                | ± 20%                 |                         | C4532JB2E224M230KA      |                         |
| 470 nF      | 5750 | 2.30 ± 0.20    | ± 10%                 | C5750JB2J224K230KA      |                         |                         |
|             |      |                | ± 20%                 | C5750JB2J224M230KA      |                         |                         |
|             | 3216 | 1.30 ± 0.10    | ± 10%                 |                         |                         | C3216JB2A334K130AA      |
|             |      |                | ± 20%                 |                         |                         | C3216JB2A334M130AA      |
|             | 3225 | 2.00 ± 0.20    | ± 10%                 |                         |                         | C3225JB2A334K200AA      |
|             |      |                | ± 20%                 |                         |                         | C3225JB2A334M200AA      |
| 680 nF      | 4532 | 2.30 ± 0.20    | ± 10%                 |                         | C4532JB2E334K230KA      |                         |
|             |      |                | ± 20%                 |                         | C4532JB2E334M230KA      |                         |
|             | 5750 | 1.60 ± 0.20    | ± 10%                 |                         | C5750JB2E334K160KA      |                         |
|             |      |                | ± 20%                 |                         | C5750JB2E334M160KA      |                         |
|             | 3216 | 1.60 ± 0.20    | ± 10%                 |                         |                         | C3216JB2A474K160AA      |
|             |      |                | ± 20%                 |                         |                         | C3216JB2A474M160AA      |
| 820 nF      | 3225 | 2.00 ± 0.20    | ± 10%                 |                         |                         | C3225JB2A474K200AA      |
|             |      |                | ± 20%                 |                         |                         | C3225JB2A474M200AA      |
|             | 4532 | 2.30 ± 0.20    | ± 10%                 |                         | C4532JB2E474K230KA      |                         |
|             |      |                | ± 20%                 |                         | C4532JB2E474M230KA      |                         |
|             | 5750 | 2.30 ± 0.20    | ± 10%                 |                         | C5750JB2E474K230KA      |                         |
|             |      |                | ± 20%                 |                         | C5750JB2E474M230KA      |                         |
| 1000 nF     | 3216 | 1.60 ± 0.20    | ± 10%                 |                         |                         | C3216JB2A684K160AA      |
|             |      |                | ± 20%                 |                         |                         | C3216JB2A684M160AA      |
|             | 3225 | 1.60 ± 0.20    | ± 10%                 |                         |                         | C3225JB2A684K160AA      |
|             |      |                | ± 20%                 |                         |                         | C3225JB2A684M160AA      |
|             | 4532 | 2.30 ± 0.20    | ± 10%                 |                         |                         | C4532JB2A684K230KA      |
|             |      |                | ± 20%                 |                         |                         | C4532JB2A684M230KA      |



## Capacitance Range Table

### Class 2 (Temperature Stable)

Temperature Characteristics: JB (-25 to +85°C, ±10%)

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number          |                         |                         |
|-------------|------|----------------|-----------------------|-------------------------|-------------------------|-------------------------|
|             |      |                |                       | Rated Voltage Edc: 630V | Rated Voltage Edc: 250V | Rated Voltage Edc: 100V |
| 680 nF      | 5750 | 1.60 ± 0.20    | ± 10%                 |                         |                         | C5750JB2A684K160KA      |
|             |      |                | ± 20%                 |                         |                         | C5750JB2A684M160KA      |
|             |      | 2.30 ± 0.20    | ± 10%                 |                         | C5750JB2E684K230KA      |                         |
|             |      |                | ± 20%                 |                         | C5750JB2E684M230KA      |                         |
| 1 µF        | 3216 | 1.60 ± 0.20    | ± 10%                 |                         |                         | C3216JB2A105K160AA      |
|             |      |                | ± 20%                 |                         |                         | C3216JB2A105M160AA      |
|             | 3225 | 2.00 ± 0.20    | ± 10%                 |                         |                         | C3225JB2A105K200AA      |
|             |      |                | ± 20%                 |                         |                         | C3225JB2A105M200AA      |
|             | 4532 | 2.30 ± 0.20    | ± 10%                 |                         |                         | C4532JB2A105K230KA      |
|             |      |                | ± 20%                 |                         |                         | C4532JB2A105M230KA      |
|             | 5750 | 2.30 ± 0.20    | ± 10%                 |                         | C5750JB2E105K230KA      | C5750JB2A105K230KA      |
|             |      |                | ± 20%                 |                         | C5750JB2E105M230KA      | C5750JB2A105M230KA      |
| 1.5 µF      | 3225 | 2.00 ± 0.20    | ± 10%                 |                         |                         | C3225JB2A155K200AB      |
|             |      |                | ± 20%                 |                         |                         | C3225JB2A155M200AB      |
|             | 4532 | 2.30 ± 0.20    | ± 10%                 |                         |                         | C4532JB2A155K230KA      |
|             |      |                | ± 20%                 |                         |                         | C4532JB2A155M230KA      |
|             | 5750 | 2.30 ± 0.20    | ± 10%                 |                         |                         | C5750JB2A155K230KA      |
|             |      |                | ± 20%                 |                         |                         | C5750JB2A155M230KA      |
| 2.2 µF      | 3225 | 2.30 ± 0.20    | ± 10%                 |                         |                         | C3225JB2A225K230AB      |
|             |      |                | ± 20%                 |                         |                         | C3225JB2A225M230AB      |
|             | 4532 | 2.30 ± 0.20    | ± 10%                 |                         |                         | C4532JB2A225K230KA      |
|             |      |                | ± 20%                 |                         |                         | C4532JB2A225M230KA      |
|             | 5750 | 2.30 ± 0.20    | ± 10%                 |                         |                         | C5750JB2A225K230KA      |
|             |      |                | ± 20%                 |                         |                         | C5750JB2A225M230KA      |
| 3.3 µF      | 5750 | 2.30 ± 0.20    | ± 10%                 |                         |                         | C5750JB2A335K230KA      |
|             |      |                | ± 20%                 |                         |                         | C5750JB2A335M230KA      |
| 4.7 µF      | 5750 | 2.30 ± 0.20    | ± 10%                 |                         |                         | C5750JB2A475K230KA      |
|             |      |                | ± 20%                 |                         |                         | C5750JB2A475M230KA      |

### Class 2 (Temperature Stable)

Temperature Characteristics: X5R (-55 to +85°C, ±15%)

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number          |                         |                         |
|-------------|------|----------------|-----------------------|-------------------------|-------------------------|-------------------------|
|             |      |                |                       | Rated Voltage Edc: 630V | Rated Voltage Edc: 250V | Rated Voltage Edc: 100V |
| 1 nF        | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608X5R2A102K080AA     |
|             |      |                | ± 20%                 |                         |                         | C1608X5R2A102M080AA     |
|             | 2012 | 0.85 ± 0.15    | ± 10%                 |                         | C2012X5R2E102K085AA     |                         |
|             |      |                | ± 20%                 |                         | C2012X5R2E102M085AA     |                         |
|             | 3216 | 1.15 ± 0.10    | ± 10%                 |                         | C3216X5R2J102K115AA     |                         |
|             |      |                | ± 20%                 |                         | C3216X5R2J102M115AA     |                         |
| 1.5 nF      | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608X5R2A152K080AA     |
|             |      |                | ± 20%                 |                         |                         | C1608X5R2A152M080AA     |
|             | 2012 | 0.85 ± 0.15    | ± 10%                 |                         | C2012X5R2E152K085AA     |                         |
|             |      |                | ± 20%                 |                         | C2012X5R2E152M085AA     |                         |
|             | 3216 | 1.15 ± 0.10    | ± 10%                 |                         | C3216X5R2J152K115AA     |                         |
|             |      |                | ± 20%                 |                         | C3216X5R2J152M115AA     |                         |
| 2.2 nF      | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608X5R2A222K080AA     |
|             |      |                | ± 20%                 |                         |                         | C1608X5R2A222M080AA     |
|             | 2012 | 0.85 ± 0.15    | ± 10%                 |                         | C2012X5R2E222K085AA     |                         |
|             |      |                | ± 20%                 |                         | C2012X5R2E222M085AA     |                         |
|             | 3216 | 1.15 ± 0.10    | ± 10%                 |                         | C3216X5R2J222K115AA     |                         |
|             |      |                | ± 20%                 |                         | C3216X5R2J222M115AA     |                         |
| 3.3 nF      | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608X5R2A332K080AA     |
|             |      |                | ± 20%                 |                         |                         | C1608X5R2A332M080AA     |
|             | 2012 | 0.85 ± 0.15    | ± 10%                 |                         | C2012X5R2E332K085AA     |                         |
|             |      |                | ± 20%                 |                         | C2012X5R2E332M085AA     |                         |
|             | 3216 | 1.15 ± 0.10    | ± 10%                 |                         | C3216X5R2J332K115AA     |                         |
|             |      |                | ± 20%                 |                         | C3216X5R2J332M115AA     |                         |
| 4.7 nF      | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608X5R2A472K080AA     |
|             |      |                | ± 20%                 |                         |                         | C1608X5R2A472M080AA     |



## Capacitance Range Table

### Class 2 (Temperature Stable)

Temperature Characteristics: X5R (-55 to +85°C, ±15%)

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number          |  |  |
|-------------|------|----------------|-----------------------|-------------------------|--|--|
|             |      |                |                       | Rated Voltage Edc: 630V |  |  |
| 4.7 nF      | 2012 | 0.85 ± 0.15    | ± 10%                 | C2012X5R2E472K085AA     |  |  |
|             |      |                | ± 20%                 | C2012X5R2E472M085AA     |  |  |
|             | 3216 | 1.15 ± 0.10    | ± 10%                 | C3216X5R2J472K115AA     |  |  |
|             |      |                | ± 20%                 | C3216X5R2J472M115AA     |  |  |
| 6.8 nF      | 1608 | 0.80 ± 0.10    | ± 10%                 | C1608X5R2A682K080AA     |  |  |
|             |      |                | ± 20%                 | C1608X5R2A682M080AA     |  |  |
|             | 2012 | 1.25 ± 0.20    | ± 10%                 | C2012X5R2E682K125AA     |  |  |
|             |      |                | ± 20%                 | C2012X5R2E682M125AA     |  |  |
|             | 3216 | 1.15 ± 0.10    | ± 10%                 | C3216X5R2J682K115AA     |  |  |
|             |      |                | ± 20%                 | C3216X5R2J682M115AA     |  |  |
| 10 nF       | 1608 | 0.80 ± 0.10    | ± 10%                 | C1608X5R2A103K080AA     |  |  |
|             |      |                | ± 20%                 | C1608X5R2A103M080AA     |  |  |
|             | 2012 | 1.25 ± 0.20    | ± 10%                 | C2012X5R2E103K125AA     |  |  |
|             |      |                | ± 20%                 | C2012X5R2E103M125AA     |  |  |
|             | 3216 | 1.15 ± 0.10    | ± 10%                 | C3216X5R2J103K115AA     |  |  |
|             |      |                | ± 20%                 | C3216X5R2J103M115AA     |  |  |
| 15 nF       | 1608 | 0.80 ± 0.10    | ± 10%                 | C1608X5R2A153K080AA     |  |  |
|             |      |                | ± 20%                 | C1608X5R2A153M080AA     |  |  |
|             | 2012 | 1.25 ± 0.20    | ± 10%                 | C2012X5R2E153K125AA     |  |  |
|             |      |                | ± 20%                 | C2012X5R2E153M125AA     |  |  |
|             | 3216 | 1.30 ± 0.10    | ± 10%                 | C3216X5R2J153K130AA     |  |  |
|             |      |                | ± 20%                 | C3216X5R2J153M130AA     |  |  |
| 22 nF       | 1608 | 0.80 ± 0.10    | ± 10%                 | C1608X5R2A223K080AA     |  |  |
|             |      |                | ± 20%                 | C1608X5R2A223M080AA     |  |  |
|             | 2012 | 1.25 ± 0.20    | ± 10%                 | C2012X5R2E223K125AA     |  |  |
|             |      |                | ± 20%                 | C2012X5R2E223M125AA     |  |  |
|             | 3216 | 1.30 ± 0.10    | ± 10%                 | C3216X5R2J223K130AA     |  |  |
|             |      |                | ± 20%                 | C3216X5R2J223M130AA     |  |  |
| 33 nF       | 2012 | 1.25 ± 0.20    | ± 10%                 | C2012X5R2A333K125AA     |  |  |
|             |      |                | ± 20%                 | C2012X5R2A333M125AA     |  |  |
|             | 3216 | 1.60 ± 0.20    | ± 10%                 | C3216X5R2J333K160AA     |  |  |
|             |      |                | ± 20%                 | C3216X5R2J333M160AA     |  |  |
| 47 nF       | 2012 | 1.25 ± 0.20    | ± 10%                 | C2012X5R2A473K125AA     |  |  |
|             |      |                | ± 20%                 | C2012X5R2A473M125AA     |  |  |
|             | 3216 | 1.60 ± 0.20    | ± 10%                 | C3216X5R2E473K160AA     |  |  |
|             |      |                | ± 20%                 | C3216X5R2E473M160AA     |  |  |
|             | 3225 | 2.00 ± 0.20    | ± 10%                 | C3225X5R2J473K200AA     |  |  |
|             |      |                | ± 20%                 | C3225X5R2J473M200AA     |  |  |
| 68 nF       | 2012 | 0.85 ± 0.15    | ± 10%                 | C2012X5R2A683K085AA     |  |  |
|             |      |                | ± 20%                 | C2012X5R2A683M085AA     |  |  |
|             | 3216 | 1.60 ± 0.20    | ± 10%                 | C3216X5R2E683K160AA     |  |  |
|             |      |                | ± 20%                 | C3216X5R2E683M160AA     |  |  |
|             | 3225 | 2.00 ± 0.20    | ± 10%                 | C3225X5R2J683K200AA     |  |  |
|             |      |                | ± 20%                 | C3225X5R2J683M200AA     |  |  |
| 100 nF      | 2012 | 1.25 ± 0.20    | ± 10%                 | C2012X5R2A104K125AA     |  |  |
|             |      |                | ± 20%                 | C2012X5R2A104M125AA     |  |  |
|             | 3216 | 1.60 ± 0.20    | ± 10%                 | C3216X5R2E104K160AA     |  |  |
|             |      |                | ± 20%                 | C3216X5R2E104M160AA     |  |  |
|             | 4532 | 2.30 ± 0.20    | ± 10%                 | C4532X5R2J104K230KA     |  |  |
|             |      |                | ± 20%                 | C4532X5R2J104M230KA     |  |  |
| 150 nF      | 3216 | 1.60 ± 0.20    | ± 10%                 | C3216X5R2A154K160AA     |  |  |
|             |      |                | ± 20%                 | C3216X5R2A154M160AA     |  |  |
|             | 3225 | 2.00 ± 0.20    | ± 10%                 | C3225X5R2E154K200AA     |  |  |
|             |      |                | ± 20%                 | C3225X5R2E154M200AA     |  |  |
|             | 5750 | 1.60 ± 0.20    | ± 10%                 | C5750X5R2J154K160KA     |  |  |
|             |      |                | ± 20%                 | C5750X5R2J154M160KA     |  |  |
| 220 nF      | 3216 | 1.15 ± 0.10    | ± 10%                 | C3216X5R2A224K115AA     |  |  |
|             |      |                | ± 20%                 | C3216X5R2A224M115AA     |  |  |
|             | 3225 | 2.00 ± 0.20    | ± 10%                 | C3225X5R2E224K200AA     |  |  |
|             |      |                | ± 20%                 | C3225X5R2E224M200AA     |  |  |



## Capacitance Range Table

### Class 2 (Temperature Stable)

Temperature Characteristics: X5R (-55 to +85°C, ±15%)

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number          |                         |                         |
|-------------|------|----------------|-----------------------|-------------------------|-------------------------|-------------------------|
|             |      |                |                       | Rated Voltage Edc: 630V | Rated Voltage Edc: 250V | Rated Voltage Edc: 100V |
| 220 nF      | 5750 | 2.30 ± 0.20    | ± 10%                 | C5750X5R2J224K230KA     |                         |                         |
|             |      |                | ± 20%                 | C5750X5R2J224M230KA     |                         |                         |
| 330 nF      | 3216 | 1.30 ± 0.10    | ± 10%                 |                         |                         | C3216X5R2A334K130AA     |
|             |      |                | ± 20%                 |                         |                         | C3216X5R2A334M130AA     |
|             | 4532 | 2.30 ± 0.20    | ± 10%                 | C4532X5R2E334K230KA     |                         |                         |
|             |      |                | ± 20%                 | C4532X5R2E334M230KA     |                         |                         |
| 470 nF      | 3216 | 1.60 ± 0.20    | ± 10%                 |                         |                         | C3216X5R2A474K160AA     |
|             |      |                | ± 20%                 |                         |                         | C3216X5R2A474M160AA     |
|             | 4532 | 2.30 ± 0.20    | ± 10%                 | C4532X5R2E474K230KA     |                         |                         |
|             |      |                | ± 20%                 | C4532X5R2E474M230KA     |                         |                         |
| 680 nF      | 3216 | 1.60 ± 0.20    | ± 10%                 |                         |                         | C3216X5R2A684K160AA     |
|             |      |                | ± 20%                 |                         |                         | C3216X5R2A684M160AA     |
|             | 5750 | 2.30 ± 0.20    | ± 10%                 | C5750X5R2E684K230KA     |                         |                         |
|             |      |                | ± 20%                 | C5750X5R2E684M230KA     |                         |                         |
| 1 µF        | 3216 | 1.60 ± 0.20    | ± 10%                 |                         |                         | C3216X5R2A105K160AA     |
|             |      |                | ± 20%                 |                         |                         | C3216X5R2A105M160AA     |
|             | 5750 | 2.30 ± 0.20    | ± 10%                 | C5750X5R2E105K230KA     |                         |                         |
|             |      |                | ± 20%                 | C5750X5R2E105M230KA     |                         |                         |
| 1.5 µF      | 3225 | 2.00 ± 0.20    | ± 10%                 |                         |                         | C3225X5R2A155K200AB     |
|             |      |                | ± 20%                 |                         |                         | C3225X5R2A155M200AB     |
| 2.2 µF      | 3225 | 2.30 ± 0.20    | ± 10%                 |                         |                         | C3225X5R2A225K230AB     |
|             |      |                | ± 20%                 |                         |                         | C3225X5R2A225M230AB     |
| 3.3 µF      | 5750 | 2.30 ± 0.20    | ± 10%                 |                         |                         | C5750X5R2A335K230KA     |
|             |      |                | ± 20%                 |                         |                         | C5750X5R2A335M230KA     |
| 4.7 µF      | 5750 | 2.30 ± 0.20    | ± 10%                 |                         |                         | C5750X5R2A475K230KA     |
|             |      |                | ± 20%                 |                         |                         | C5750X5R2A475M230KA     |

### Class 2 (Temperature Stable)

Temperature Characteristics: X6S (-55 to +105°C, ±22%)

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number          |  |
|-------------|------|----------------|-----------------------|-------------------------|--|
|             |      |                |                       | Rated Voltage Edc: 450V |  |
| 1 µF        | 5750 | 2.50 ± 0.30    | ± 10%                 | C5750X6S2W105K250KA     |  |
|             |      |                | ± 20%                 | C5750X6S2W105M250KA     |  |
| 2.2 µF      | 5750 | 2.50 ± 0.30    | ± 10%                 | C5750X6S2W225K250KA     |  |
|             |      |                | ± 20%                 | C5750X6S2W225M250KA     |  |

### Class 2 (Temperature Stable)

Temperature Characteristics: X7R (-55 to +125°C, ±15%)

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number          |                         |                         |
|-------------|------|----------------|-----------------------|-------------------------|-------------------------|-------------------------|
|             |      |                |                       | Rated Voltage Edc: 630V | Rated Voltage Edc: 250V | Rated Voltage Edc: 100V |
| 1 nF        | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608X7R2A102K080AA     |
|             |      |                | ± 20%                 |                         |                         | C1608X7R2A102M080AA     |
|             | 2012 | 0.85 ± 0.15    | ± 10%                 |                         | C2012X7R2E102K085AA     | C2012X7R2A102K085AA     |
|             |      |                | ± 20%                 |                         | C2012X7R2E102M085AA     | C2012X7R2A102M085AA     |
|             | 3216 | 1.15 ± 0.15    | ± 10%                 | C3216X7R2J102K115AA     |                         |                         |
|             |      |                | ± 20%                 | C3216X7R2J102M115AA     |                         |                         |
| 1.5 nF      | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608X7R2A152K080AA     |
|             |      |                | ± 20%                 |                         |                         | C1608X7R2A152M080AA     |
|             | 2012 | 0.85 ± 0.15    | ± 10%                 |                         | C2012X7R2E152K085AA     | C2012X7R2A152K085AA     |
|             |      |                | ± 20%                 |                         | C2012X7R2E152M085AA     | C2012X7R2A152M085AA     |
|             | 3216 | 1.15 ± 0.15    | ± 10%                 | C3216X7R2J152K115AA     |                         |                         |
|             |      |                | ± 20%                 | C3216X7R2J152M115AA     |                         |                         |
| 2.2 nF      | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608X7R2A222K080AA     |
|             |      |                | ± 20%                 |                         |                         | C1608X7R2A222M080AA     |
|             | 2012 | 0.85 ± 0.15    | ± 10%                 |                         | C2012X7R2E222K085AA     | C2012X7R2A222K085AA     |
|             |      |                | ± 20%                 |                         | C2012X7R2E222M085AA     | C2012X7R2A222M085AA     |
|             | 3216 | 1.15 ± 0.15    | ± 10%                 | C3216X7R2J222K115AA     |                         |                         |
|             |      |                | ± 20%                 | C3216X7R2J222M115AA     |                         |                         |



## Capacitance Range Table

### Class 2 (Temperature Stable)

Temperature Characteristics: X7R (-55 to +125°C, ±15%)

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number          |                         |                         |
|-------------|------|----------------|-----------------------|-------------------------|-------------------------|-------------------------|
|             |      |                |                       | Rated Voltage Edc: 630V | Rated Voltage Edc: 250V | Rated Voltage Edc: 100V |
| 3.3 nF      | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608X7R2A332K080AA     |
|             |      |                | ± 20%                 |                         |                         | C1608X7R2A332M080AA     |
|             | 2012 | 0.85 ± 0.15    | ± 10%                 |                         | C2012X7R2E332K085AA     | C2012X7R2A332K085AA     |
|             |      |                | ± 20%                 |                         | C2012X7R2E332M085AA     | C2012X7R2A332M085AA     |
|             | 3216 | 1.15 ± 0.15    | ± 10%                 | C3216X7R2J332K115AA     |                         |                         |
|             |      |                | ± 20%                 | C3216X7R2J332M115AA     |                         |                         |
| 4.7 nF      | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608X7R2A472K080AA     |
|             |      |                | ± 20%                 |                         |                         | C1608X7R2A472M080AA     |
|             | 2012 | 0.85 ± 0.15    | ± 10%                 |                         | C2012X7R2E472K085AA     | C2012X7R2A472K085AA     |
|             |      |                | ± 20%                 |                         | C2012X7R2E472M085AA     | C2012X7R2A472M085AA     |
|             | 3216 | 1.15 ± 0.15    | ± 10%                 | C3216X7R2J472K115AA     |                         |                         |
|             |      |                | ± 20%                 | C3216X7R2J472M115AA     |                         |                         |
| 6.8 nF      | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608X7R2A682K080AA     |
|             |      |                | ± 20%                 |                         |                         | C1608X7R2A682M080AA     |
|             | 2012 | 0.85 ± 0.15    | ± 10%                 |                         |                         | C2012X7R2A682K085AA     |
|             |      |                | ± 20%                 |                         |                         | C2012X7R2A682M085AA     |
|             |      | 1.25 ± 0.20    | ± 10%                 |                         | C2012X7R2E682K125AA     |                         |
|             |      |                | ± 20%                 |                         | C2012X7R2E682M125AA     |                         |
|             | 3216 | 1.15 ± 0.15    | ± 10%                 | C3216X7R2J682K115AA     |                         |                         |
|             |      |                | ± 20%                 | C3216X7R2J682M115AA     |                         |                         |
| 10 nF       | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608X7R2A103K080AA     |
|             |      |                | ± 20%                 |                         |                         | C1608X7R2A103M080AA     |
|             | 2012 | 0.85 ± 0.15    | ± 10%                 |                         |                         | C2012X7R2A103K085AA     |
|             |      |                | ± 20%                 |                         |                         | C2012X7R2A103M085AA     |
|             |      | 1.25 ± 0.20    | ± 10%                 |                         | C2012X7R2E103K125AA     |                         |
|             |      |                | ± 20%                 |                         | C2012X7R2E103M125AA     |                         |
|             | 3216 | 1.15 ± 0.15    | ± 10%                 | C3216X7R2J103K115AA     |                         |                         |
|             |      |                | ± 20%                 | C3216X7R2J103M115AA     |                         |                         |
| 15 nF       | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608X7R2A153K080AA     |
|             |      |                | ± 20%                 |                         |                         | C1608X7R2A153M080AA     |
|             | 2012 | 1.25 ± 0.20    | ± 10%                 |                         | C2012X7R2E153K125AA     |                         |
|             |      |                | ± 20%                 |                         | C2012X7R2E153M125AA     |                         |
|             |      | 1.15 ± 0.15    | ± 10%                 |                         | C3216X7R2E153K115AA     |                         |
|             |      |                | ± 20%                 |                         | C3216X7R2E153M115AA     |                         |
|             | 3216 | 1.30 ± 0.20    | ± 10%                 | C3216X7R2J153K130AA     |                         |                         |
|             |      |                | ± 20%                 | C3216X7R2J153M130AA     |                         |                         |
| 22 nF       | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608X7R2A223K080AA     |
|             |      |                | ± 20%                 |                         |                         | C1608X7R2A223M080AA     |
|             | 2012 | 1.25 ± 0.20    | ± 10%                 |                         | C2012X7R2E223K125AA     | C2012X7R2A223K125AA     |
|             |      |                | ± 20%                 |                         | C2012X7R2E223M125AA     | C2012X7R2A223M125AA     |
|             |      | 1.15 ± 0.15    | ± 10%                 |                         | C3216X7R2E223K115AA     |                         |
|             |      |                | ± 20%                 |                         | C3216X7R2E223M115AA     |                         |
|             | 3216 | 1.30 ± 0.20    | ± 10%                 | C3216X7R2J223K130AA     |                         |                         |
|             |      |                | ± 20%                 | C3216X7R2J223M130AA     |                         |                         |
| 33 nF       | 2012 | 1.25 ± 0.20    | ± 10%                 |                         |                         | C2012X7R2A333K125AA     |
|             |      |                | ± 20%                 |                         |                         | C2012X7R2A333M125AA     |
|             | 3216 | 1.15 ± 0.15    | ± 10%                 |                         |                         | C3216X7R2A333K115AA     |
|             |      |                | ± 20%                 |                         |                         | C3216X7R2A333M115AA     |
|             |      | 1.60 ± 0.20    | ± 10%                 | C3216X7R2J333K160AA     | C3216X7R2E333K160AA     |                         |
|             |      |                | ± 20%                 | C3216X7R2J333M160AA     | C3216X7R2E333M160AA     |                         |
| 47 nF       | 2012 | 1.25 ± 0.20    | ± 10%                 |                         |                         | C2012X7R2A473K125AA     |
|             |      |                | ± 20%                 |                         |                         | C2012X7R2A473M125AA     |
|             | 3216 | 1.15 ± 0.15    | ± 10%                 |                         |                         | C3216X7R2A473K115AA     |
|             |      |                | ± 20%                 |                         |                         | C3216X7R2A473M115AA     |
|             |      | 1.60 ± 0.20    | ± 10%                 |                         | C3216X7R2E473K160AA     |                         |
|             |      |                | ± 20%                 |                         | C3216X7R2E473M160AA     |                         |
| 68 nF       | 2012 | 0.85 ± 0.15    | ± 10%                 |                         |                         | C2012X7R2A683K085AA     |
|             |      |                | ± 20%                 |                         |                         | C2012X7R2A683M085AA     |



## Capacitance Range Table

### Class 2 (Temperature Stable)

Temperature Characteristics: X7R (-55 to +125°C, ±15%)

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number          |  |  |
|-------------|------|----------------|-----------------------|-------------------------|--|--|
|             |      |                |                       | Rated Voltage Edc: 630V |  |  |
| 68 nF       | 3216 | 1.60 ± 0.20    | ± 10%                 | C3216X7R2E683K160AA     |  |  |
|             |      |                | ± 20%                 | C3216X7R2E683M160AA     |  |  |
|             | 3225 | 2.00 ± 0.20    | ± 10%                 | C3225X7R2J683K200AA     |  |  |
|             |      |                | ± 20%                 | C3225X7R2J683M200AA     |  |  |
|             | 4532 | 1.60 ± 0.20    | ± 10%                 | C4532X7R2J683K160KA     |  |  |
|             |      |                | ± 20%                 | C4532X7R2J683M160KA     |  |  |
| 100 nF      | 2012 | 1.25 ± 0.20    | ± 10%                 | C2012X7R2A104K125AA     |  |  |
|             |      |                | ± 20%                 | C2012X7R2A104M125AA     |  |  |
|             | 3216 | 1.60 ± 0.20    | ± 10%                 | C3216X7R2E104K160AA     |  |  |
|             |      |                | ± 20%                 | C3216X7R2E104M160AA     |  |  |
|             | 3225 | 2.00 ± 0.20    | ± 10%                 | C3225X7R2E104K200AA     |  |  |
|             |      |                | ± 20%                 | C3225X7R2E104M200AA     |  |  |
| 150 nF      | 4532 | 2.30 ± 0.20    | ± 10%                 | C4532X7R2J104K230KA     |  |  |
|             |      |                | ± 20%                 | C4532X7R2J104M230KA     |  |  |
|             | 3216 | 1.60 ± 0.20    | ± 10%                 | C3216X7R2A154K160AA     |  |  |
|             |      |                | ± 20%                 | C3216X7R2A154M160AA     |  |  |
|             | 3225 | 2.00 ± 0.20    | ± 10%                 | C3225X7R2E154K200AA     |  |  |
|             |      |                | ± 20%                 | C3225X7R2E154M200AA     |  |  |
| 220 nF      | 4532 | 1.60 ± 0.20    | ± 10%                 | C4532X7R2E154K160KA     |  |  |
|             |      |                | ± 20%                 | C4532X7R2E154M160KA     |  |  |
|             | 5750 | 1.60 ± 0.20    | ± 10%                 | C5750X7R2J154K160KA     |  |  |
|             |      |                | ± 20%                 | C5750X7R2J154M160KA     |  |  |
|             | 3216 | 1.15 ± 0.15    | ± 10%                 | C3216X7R2A224K115AA     |  |  |
|             |      |                | ± 20%                 | C3216X7R2A224M115AA     |  |  |
| 330 nF      | 3225 | 2.00 ± 0.20    | ± 10%                 | C3225X7R2E224K200AA     |  |  |
|             |      |                | ± 20%                 | C3225X7R2E224M200AA     |  |  |
|             | 4532 | 2.30 ± 0.20    | ± 10%                 | C4532X7R2E224K230KA     |  |  |
|             |      |                | ± 20%                 | C4532X7R2E224M230KA     |  |  |
|             | 5750 | 2.30 ± 0.20    | ± 10%                 | C5750X7R2J224K230KA     |  |  |
|             |      |                | ± 20%                 | C5750X7R2J224M230KA     |  |  |
| 470 nF      | 3216 | 1.30 ± 0.20    | ± 10%                 | C3216X7R2A334K130AA     |  |  |
|             |      |                | ± 20%                 | C3216X7R2A334M130AA     |  |  |
|             | 3225 | 2.00 ± 0.20    | ± 10%                 | C3225X7R2A334K200AA     |  |  |
|             |      |                | ± 20%                 | C3225X7R2A334M200AA     |  |  |
|             | 4532 | 2.30 ± 0.20    | ± 10%                 | C4532X7R2E334K230KA     |  |  |
|             |      |                | ± 20%                 | C4532X7R2E334M230KA     |  |  |
| 680 nF      | 5750 | 1.60 ± 0.20    | ± 10%                 | C5750X7R2E334K160KA     |  |  |
|             |      |                | ± 20%                 | C5750X7R2E334M160KA     |  |  |
|             | 3216 | 1.60 ± 0.20    | ± 10%                 | C3216X7R2A474K160AA     |  |  |
|             |      |                | ± 20%                 | C3216X7R2A474M160AA     |  |  |
|             | 3225 | 2.00 ± 0.20    | ± 10%                 | C3225X7R2A474K200AA     |  |  |
|             |      |                | ± 20%                 | C3225X7R2A474M200AA     |  |  |
| 1 µF        | 4532 | 2.30 ± 0.20    | ± 10%                 | C4532X7R2E474K230KA     |  |  |
|             |      |                | ± 20%                 | C4532X7R2E474M230KA     |  |  |
|             | 5750 | 2.30 ± 0.20    | ± 10%                 | C5750X7R2E474K230KA     |  |  |
|             |      |                | ± 20%                 | C5750X7R2E474M230KA     |  |  |
|             | 3216 | 1.60 ± 0.20    | ± 10%                 | C3216X7R2A684K160AA     |  |  |
|             |      |                | ± 20%                 | C3216X7R2A684M160AA     |  |  |
| 1 µF        | 3225 | 1.60 ± 0.20    | ± 10%                 | C3225X7R2A684K160AA     |  |  |
|             |      |                | ± 20%                 | C3225X7R2A684M160AA     |  |  |
|             | 4532 | 2.30 ± 0.20    | ± 10%                 | C4532X7R2A684K230KA     |  |  |
|             |      |                | ± 20%                 | C4532X7R2A684M230KA     |  |  |
|             | 5750 | 1.60 ± 0.20    | ± 10%                 | C5750X7R2A684K160KA     |  |  |
|             |      |                | ± 20%                 | C5750X7R2A684M160KA     |  |  |
| 1 µF        | 5750 | 2.30 ± 0.20    | ± 10%                 | C5750X7R2E684K230KA     |  |  |
|             |      |                | ± 20%                 | C5750X7R2E684M230KA     |  |  |
|             | 3216 | 1.60 ± 0.20    | ± 10%                 | C3216X7R2A105K160AA     |  |  |
|             |      |                | ± 20%                 | C3216X7R2A105M160AA     |  |  |
|             | 3225 | 2.00 ± 0.20    | ± 10%                 | C3225X7R2A105K200AA     |  |  |
|             |      |                | ± 20%                 | C3225X7R2A105M200AA     |  |  |



## Capacitance Range Table

### Class 2 (Temperature Stable)

Temperature Characteristics: X7R (-55 to +125°C, ±15%)

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number          |                         |                         |
|-------------|------|----------------|-----------------------|-------------------------|-------------------------|-------------------------|
|             |      |                |                       | Rated Voltage Edc: 630V | Rated Voltage Edc: 250V | Rated Voltage Edc: 100V |
| 1 µF        | 4532 | 2.30 ± 0.20    | ± 10%                 |                         |                         | C4532X7R2A105K230KA     |
|             |      |                | ± 20%                 |                         |                         | C4532X7R2A105M230KA     |
|             | 5750 | 2.30 ± 0.20    | ± 10%                 |                         | C5750X7R2E105K230KA     | C5750X7R2A105K230KA     |
|             |      |                | ± 20%                 |                         | C5750X7R2E105M230KA     | C5750X7R2A105M230KA     |
| 1.5 µF      | 3225 | 2.00 ± 0.20    | ± 10%                 |                         |                         | C3225X7R2A155K200AB     |
|             |      |                | ± 20%                 |                         |                         | C3225X7R2A155M200AB     |
|             | 4532 | 2.30 ± 0.20    | ± 10%                 |                         |                         | C4532X7R2A155K230KA     |
|             |      |                | ± 20%                 |                         |                         | C4532X7R2A155M230KA     |
| 2.2 µF      | 5750 | 2.30 ± 0.20    | ± 10%                 |                         |                         | C5750X7R2A155K230KA     |
|             |      |                | ± 20%                 |                         |                         | C5750X7R2A155M230KA     |
|             | 3225 | 2.30 ± 0.20    | ± 10%                 |                         |                         | C3225X7R2A225K230AB     |
|             |      |                | ± 20%                 |                         |                         | C3225X7R2A225M230AB     |
| 3.3 µF      | 4532 | 2.30 ± 0.20    | ± 10%                 |                         |                         | C4532X7R2A225K230KA     |
|             |      |                | ± 20%                 |                         |                         | C4532X7R2A225M230KA     |
|             | 5750 | 2.30 ± 0.20    | ± 10%                 |                         |                         | C5750X7R2A225K230KA     |
|             |      |                | ± 20%                 |                         |                         | C5750X7R2A225M230KA     |
| 4.7 µF      | 5750 | 2.30 ± 0.20    | ± 10%                 |                         |                         | C5750X7R2A335K230KA     |
|             |      |                | ± 20%                 |                         |                         | C5750X7R2A335M230KA     |
| 4.7 µF      | 5750 | 2.30 ± 0.20    | ± 10%                 |                         |                         | C5750X7R2A475K230KA     |
|             |      |                | ± 20%                 |                         |                         | C5750X7R2A475M230KA     |

### Class 2 (Temperature Stable)

Temperature Characteristics: X7T (-55 to +125°C, +22/-33%)

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number          |                         |                         |
|-------------|------|----------------|-----------------------|-------------------------|-------------------------|-------------------------|
|             |      |                |                       | Rated Voltage Edc: 630V | Rated Voltage Edc: 250V | Rated Voltage Edc: 100V |
| 1 nF        | 1005 | 0.50 ± 0.05    | ± 10%                 |                         |                         | C1005X7S2A102K050BB     |
|             |      |                | ± 20%                 |                         |                         | C1005X7S2A102M050BB     |
| 1.5 nF      | 1005 | 0.50 ± 0.05    | ± 10%                 |                         |                         | C1005X7S2A152K050BB     |
|             |      |                | ± 20%                 |                         |                         | C1005X7S2A152M050BB     |
| 2.2 nF      | 1005 | 0.50 ± 0.05    | ± 10%                 |                         |                         | C1005X7S2A222K050BB     |
|             |      |                | ± 20%                 |                         |                         | C1005X7S2A222M050BB     |
| 3.3 nF      | 1005 | 0.50 ± 0.05    | ± 10%                 |                         |                         | C1005X7S2A332K050BB     |
|             |      |                | ± 20%                 |                         |                         | C1005X7S2A332M050BB     |
| 4.7 nF      | 1005 | 0.50 ± 0.05    | ± 10%                 |                         |                         | C1005X7S2A472K050BB     |
|             |      |                | ± 20%                 |                         |                         | C1005X7S2A472M050BB     |
| 6.8 nF      | 1005 | 0.50 ± 0.05    | ± 10%                 |                         |                         | C1005X7S2A682K050BB     |
|             |      |                | ± 20%                 |                         |                         | C1005X7S2A682M050BB     |
| 10 nF       | 1005 | 0.50 ± 0.05    | ± 10%                 |                         |                         | C1005X7S2A103K050BB     |
|             |      |                | ± 20%                 |                         |                         | C1005X7S2A103M050BB     |
| 33 nF       | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608X7S2A333K080AB     |
|             |      |                | ± 20%                 |                         |                         | C1608X7S2A333M080AB     |
| 47 nF       | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608X7S2A473K080AB     |
|             |      |                | ± 20%                 |                         |                         | C1608X7S2A473M080AB     |
| 68 nF       | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608X7S2A683K080AB     |
|             |      |                | ± 20%                 |                         |                         | C1608X7S2A683M080AB     |
| 100 nF      | 1608 | 0.80 ± 0.10    | ± 10%                 |                         |                         | C1608X7S2A104K080AB     |
|             |      |                | ± 20%                 |                         |                         | C1608X7S2A104M080AB     |
| 150 nF      | 2012 | 0.85 ± 0.15    | ± 10%                 |                         |                         | C2012X7S2A154K085AB     |
|             |      |                | ± 20%                 |                         |                         | C2012X7S2A154M085AB     |
| 220 nF      | 2012 | 0.85 ± 0.15    | ± 10%                 |                         |                         | C2012X7S2A224K085AB     |
|             |      |                | ± 20%                 |                         |                         | C2012X7S2A224M085AB     |
| 330 nF      | 2012 | 1.25 ± 0.20    | ± 10%                 |                         |                         | C2012X7S2A334K125AB     |
|             |      |                | ± 20%                 |                         |                         | C2012X7S2A334M125AB     |
| 470 nF      | 2012 | 1.25 ± 0.20    | ± 10%                 |                         |                         | C2012X7S2A474K125AB     |
|             |      |                | ± 20%                 |                         |                         | C2012X7S2A474M125AB     |
| 680 nF      | 2012 | 1.25 ± 0.20    | ± 10%                 |                         |                         | C2012X7S2A684K125AB     |
|             |      |                | ± 20%                 |                         |                         | C2012X7S2A684M125AB     |
| 1 µF        | 2012 | 1.25 ± 0.20    | ± 10%                 |                         |                         | C2012X7S2A105K125AB     |
|             |      |                | ± 20%                 |                         |                         | C2012X7S2A105M125AB     |



## Capacitance Range Table

### Class 2 (Temperature Stable)

Temperature Characteristics: X7S (-55 to +125°C, ±22%)

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number          |                         |                         |
|-------------|------|----------------|-----------------------|-------------------------|-------------------------|-------------------------|
|             |      |                |                       | Rated Voltage Edc: 630V | Rated Voltage Edc: 250V | Rated Voltage Edc: 100V |
| 1.5 µF      | 3216 | 1.60 ± 0.20    | ± 10%                 |                         |                         | C3216X7S2A155K160AB     |
|             |      |                | ± 20%                 |                         |                         | C3216X7S2A155M160AB     |
| 2.2 µF      | 3216 | 1.60 ± 0.20    | ± 10%                 |                         |                         | C3216X7S2A225K160AB     |
|             |      |                | ± 20%                 |                         |                         | C3216X7S2A225M160AB     |
| 3.3 µF      | 3216 | 1.60 ± 0.20    | ± 10%                 |                         |                         | C3216X7S2A335K160AB     |
|             |      |                | ± 20%                 |                         |                         | C3216X7S2A335M160AB     |
|             | 3225 | 2.00 ± 0.20    | ± 10%                 |                         |                         | C3225X7S2A335K200AB     |
|             |      |                | ± 20%                 |                         |                         | C3225X7S2A335M200AB     |
|             | 4532 | 2.00 ± 0.20    | ± 10%                 |                         |                         | C4532X7S2A335K200KB     |
|             |      |                | ± 20%                 |                         |                         | C4532X7S2A335M200KB     |
| 4.7 µF      | 3225 | 2.00 ± 0.20    | ± 10%                 |                         |                         | C3225X7S2A475K200AB     |
|             |      |                | ± 20%                 |                         |                         | C3225X7S2A475M200AB     |
|             | 4532 | 2.30 ± 0.20    | ± 10%                 |                         |                         | C4532X7S2A475K230KB     |
|             |      |                | ± 20%                 |                         |                         | C4532X7S2A475M230KB     |
| 6.8 µF      | 5750 | 2.00 ± 0.20    | ± 10%                 |                         |                         | C5750X7S2A685K200KB     |
|             |      |                | ± 20%                 |                         |                         | C5750X7S2A685M200KB     |
| 10 µF       | 5750 | 2.30 ± 0.20    | ± 10%                 |                         |                         | C5750X7S2A106K230KB     |
|             |      |                | ± 20%                 |                         |                         | C5750X7S2A106M230KB     |
| 15 µF       | 5750 | 2.50 ± 0.30    | ± 20%                 |                         |                         | C5750X7S2A156M250KB     |

### Class 2 (Temperature Stable)

Temperature Characteristics: X7T (-55 to +125°C, +22/-33%)

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number          |                         |                         |                         |
|-------------|------|----------------|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|
|             |      |                |                       | Rated Voltage Edc: 630V | Rated Voltage Edc: 450V | Rated Voltage Edc: 350V | Rated Voltage Edc: 250V |
| 10 nF       | 2012 | 0.85 ± 0.15    | ± 10%                 |                         | C2012X7T2W103K085AA     | C2012X7T2V103K085AA     |                         |
|             |      |                | ± 20%                 |                         | C2012X7T2W103M085AA     | C2012X7T2V103M085AA     |                         |
|             | 3216 | 0.85 ± 0.10    | ± 10%                 | C3216X7T2J103K085AC     |                         |                         |                         |
|             |      |                | ± 20%                 | C3216X7T2J103M085AC     |                         |                         |                         |
| 15 nF       | 2012 | 0.85 ± 0.15    | ± 10%                 |                         | C2012X7T2W153K085AA     | C2012X7T2V153K085AA     |                         |
|             |      |                | ± 20%                 |                         | C2012X7T2W153M085AA     | C2012X7T2V153M085AA     |                         |
|             | 3216 | 0.85 ± 0.10    | ± 10%                 | C3216X7T2J153K085AC     |                         |                         |                         |
|             |      |                | ± 20%                 | C3216X7T2J153M085AC     |                         |                         |                         |
| 22 nF       | 2012 | 1.25 ± 0.20    | ± 10%                 |                         | C2012X7T2W223K125AA     | C2012X7T2V223K125AA     |                         |
|             |      |                | ± 20%                 |                         | C2012X7T2W223M125AA     | C2012X7T2V223M125AA     |                         |
|             | 3216 | 1.15 ± 0.10    | ± 10%                 | C3216X7T2J223K115AC     |                         |                         |                         |
|             |      |                | ± 20%                 | C3216X7T2J223M115AC     |                         |                         |                         |
| 33 nF       | 2012 | 1.25 ± 0.20    | ± 10%                 |                         | C2012X7T2W333K125AA     | C2012X7T2V333K125AA     | C2012X7T2E333K125AA     |
|             |      |                | ± 20%                 |                         | C2012X7T2W333M125AA     | C2012X7T2V333M125AA     | C2012X7T2E333M125AA     |
|             | 3216 | 1.15 ± 0.10    | ± 10%                 | C3216X7T2J333K115AC     |                         |                         |                         |
|             |      |                | ± 20%                 | C3216X7T2J333M115AC     |                         |                         |                         |
| 47 nF       | 2012 | 1.25 ± 0.20    | ± 10%                 |                         | C2012X7T2W473K125AA     | C2012X7T2V473K125AA     | C2012X7T2E473K125AA     |
|             |      |                | ± 20%                 |                         | C2012X7T2W473M125AA     | C2012X7T2V473M125AA     | C2012X7T2E473M125AA     |
|             | 3216 | 1.60 ± 0.20    | ± 10%                 | C3216X7T2J473K160AC     |                         |                         |                         |
|             |      |                | ± 20%                 | C3216X7T2J473M160AC     |                         |                         |                         |
| 68 nF       | 2012 | 1.25 ± 0.20    | ± 10%                 |                         |                         |                         | C2012X7T2E683K125AA     |
|             |      |                | ± 20%                 |                         |                         |                         | C2012X7T2E683M125AA     |
|             | 3216 | 1.30 ± 0.10    | ± 10%                 |                         | C3216X7T2W683K130AA     | C3216X7T2V683K130AA     |                         |
|             |      |                | ± 20%                 |                         | C3216X7T2W683M130AA     | C3216X7T2V683M130AA     |                         |
| 100 nF      | 2012 | 1.25 ± 0.20    | ± 10%                 |                         |                         |                         | C2012X7T2E104K125AA     |
|             |      |                | ± 20%                 |                         |                         |                         | C2012X7T2E104M125AA     |
|             | 3216 | 1.60 ± 0.20    | ± 10%                 |                         | C3216X7T2W104K160AA     | C3216X7T2V104K160AA     |                         |
|             |      |                | ± 20%                 |                         | C3216X7T2W104M160AA     | C3216X7T2V104M160AA     |                         |
|             | 3225 | 1.60 ± 0.20    | ± 10%                 | C3225X7T2J104K160AC     |                         |                         |                         |
|             |      |                | ± 20%                 | C3225X7T2J104M160AC     |                         |                         |                         |
| 150 nF      | 3216 | 1.30 ± 0.10    | ± 10%                 |                         |                         |                         | C3216X7T2E154K130AA     |
|             |      |                | ± 20%                 |                         |                         |                         | C3216X7T2E154M130AA     |
|             | 3225 | 2.00 ± 0.20    | ± 10%                 | C3225X7T2J154K200AC     |                         |                         |                         |
|             |      |                | ± 20%                 | C3225X7T2J154M200AC     |                         |                         |                         |
|             | 4532 | 1.60 ± 0.20    | ± 10%                 | C4532X7T2J154K160KC     |                         |                         |                         |
|             |      |                | ± 20%                 | C4532X7T2J154M160KC     |                         |                         |                         |



## Capacitance Range Table

### Class 2 (Temperature Stable)

Temperature Characteristics: X7T (-55 to +125°C, +22/-33%)

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number          |                         |                         |                         |
|-------------|------|----------------|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|
|             |      |                |                       | Rated Voltage Edc: 630V | Rated Voltage Edc: 450V | Rated Voltage Edc: 350V | Rated Voltage Edc: 250V |
| 220 nF      | 3216 | 1.60 ± 0.20    | ± 10%                 |                         |                         |                         | C3216X7T2E224K160AA     |
|             |      |                | ± 20%                 |                         |                         |                         | C3216X7T2E224M160AA     |
|             | 3225 | 2.00 ± 0.20    | ± 10%                 |                         | C3225X7T2W224K200AA     |                         |                         |
|             |      |                | ± 20%                 |                         | C3225X7T2W224M200AA     |                         |                         |
|             | 4532 | 2.00 ± 0.20    | ± 10%                 | C4532X7T2J224K200KC     |                         |                         |                         |
|             |      |                | ± 20%                 | C4532X7T2J224M200KC     |                         |                         |                         |
| 300 nF      | 4532 | 2.00 ± 0.20    | ± 10%                 | C4532X7T2J304K250KA     |                         |                         |                         |
|             |      |                | ± 20%                 | C4532X7T2J304M250KA     |                         |                         |                         |
| 330 nF      | 3225 | 2.00 ± 0.20    | ± 10%                 |                         |                         |                         | C3225X7T2E334K200AA     |
|             |      |                | ± 20%                 |                         |                         |                         | C3225X7T2E334M200AA     |
|             | 4532 | 1.60 ± 0.20    | ± 10%                 |                         | C4532X7T2W334K160KA     |                         |                         |
|             |      |                | ± 20%                 |                         | C4532X7T2W334M160KA     |                         |                         |
|             | 5750 | 2.00 ± 0.20    | ± 10%                 | C5750X7T2J334K200KC     |                         |                         |                         |
|             |      |                | ± 20%                 | C5750X7T2J334M200KC     |                         |                         |                         |
| 470 nF      | 4532 | 2.30 ± 0.20    | ± 10%                 |                         | C4532X7T2W474K230KA     |                         |                         |
|             |      |                | ± 20%                 |                         | C4532X7T2W474M230KA     |                         |                         |
|             | 5750 | 2.50 ± 0.30    | ± 10%                 | C5750X7T2J474K250KC     |                         |                         |                         |
|             |      |                | ± 20%                 | C5750X7T2J474M250KC     |                         |                         |                         |
| 680 nF      | 4532 | 1.60 ± 0.20    | ± 10%                 |                         |                         |                         | C4532X7T2E684K160KA     |
|             |      |                | ± 20%                 |                         |                         |                         | C4532X7T2E684M160KA     |
|             | 5750 | 2.00 ± 0.20    | ± 10%                 |                         | C5750X7T2W684K200KA     |                         |                         |
|             |      |                | ± 20%                 |                         | C5750X7T2W684M200KA     |                         |                         |
| 1 µF        | 4532 | 2.50 ± 0.30    | ± 10%                 |                         |                         |                         | C4532X7T2E105K250KA     |
|             |      |                | ± 20%                 |                         |                         |                         | C4532X7T2E105M250KA     |
|             | 5750 | 2.50 ± 0.30    | ± 10%                 |                         | C5750X7T2W105K250KA     |                         |                         |
|             |      |                | ± 20%                 |                         | C5750X7T2W105M250KA     |                         |                         |
| 1.5 µF      | 5750 | 2.00 ± 0.20    | ± 10%                 |                         |                         |                         | C5750X7T2E155K200KA     |
|             |      |                | ± 20%                 |                         |                         |                         | C5750X7T2E155M200KA     |
| 2.2 µF      | 5750 | 2.50 ± 0.30    | ± 10%                 |                         |                         |                         | C5750X7T2E225K250KA     |
|             |      |                | ± 20%                 |                         |                         |                         | C5750X7T2E225M250KA     |