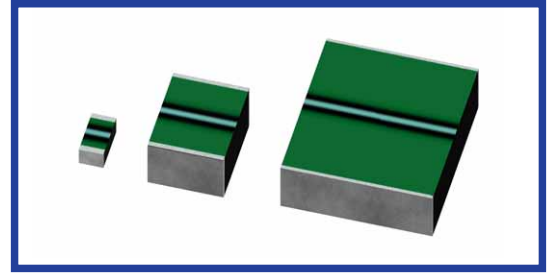


MU SERIES

Standard

- Surface-mounted device.
- Non-polar capacitor.
- Lead free reflow soldering is available.
- Flow soldering is available.

RoHS  
compliance



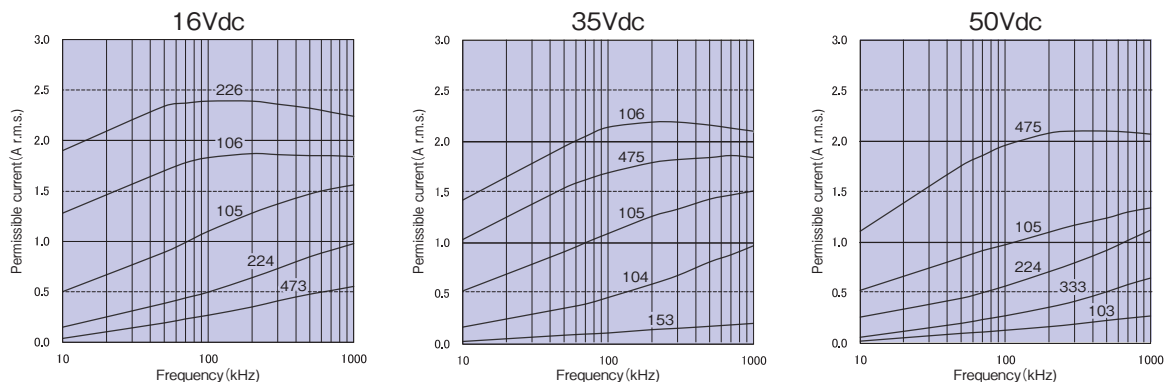
◆SPECIFICATIONS

| Items                      | Characteristics                                                                                                                                                                       |                                                                 |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| Category Temperature Range | -55~+125°C                                                                                                                                                                            |                                                                 |
| Rated Voltage Range        | 16~63Vdc                                                                                                                                                                              | 100Vdc                                                          |
| Capacitance Range          | 0.0001~22μF (101~226)                                                                                                                                                                 | 0.001~0.1μF (102~104)                                           |
| Capacitance Tolerance      | ±10% (K), ±20% (M)                                                                                                                                                                    |                                                                 |
| Dissipation Factor (tanδ)  | 1.5% or less (1kHz±20%, 5Vrms or less)                                                                                                                                                |                                                                 |
| Voltage Proof              | Nothing abnormal shall be found, when applying 150% of the rated voltage for 1 minute or 175% of the rated voltage for 1 second to 5 seconds.                                         |                                                                 |
| Insulation Resistance      | $C \leq 0.1\mu\text{F}$ : 3000MΩ or more<br>(After 1 minute application of rated voltage)<br>$C > 0.1\mu\text{F}$ : 300MΩ·μF or more<br>(After 1 minute application of rated voltage) | 1000MΩ or more<br>(After 1 minute application of rated voltage) |

◆PART NUMBER

| Rated Voltage |               | Series | Capacitance |             | Capacitance Tolerance | Option    | TP code | Chip Size |            |
|---------------|---------------|--------|-------------|-------------|-----------------------|-----------|---------|-----------|------------|
| Code          | Rated Voltage |        | Code        | Capacitance | Code                  | Tolerance |         | Code      | Chip Size  |
| 16            | 16Vdc         |        | 101         | 0.0001μF    | K                     | ±10%      |         | 1608      | 1.6×0.8mm  |
| 25            | 25Vdc         |        | 682         | 0.0068μF    | M                     | ±20%      |         | 2012      | 2.0×1.25mm |
| 35            | 35Vdc         |        | 153         | 0.015μF     |                       |           |         | 3216      | 3.2×1.6mm  |
| 50            | 50Vdc         |        | 224         | 0.22μF      |                       |           |         | 3225      | 3.2×2.5mm  |
| 63            | 63Vdc         |        | 335         | 3.3μF       |                       |           |         | 4532      | 4.5×3.2mm  |
| 100           | 100Vdc        |        | 226         | 22μF        |                       |           |         | 5750      | 5.7×5.0mm  |

◆PERMISSIBLE CURRENT FOR FREQUENCY



◆STANDARD SIZE

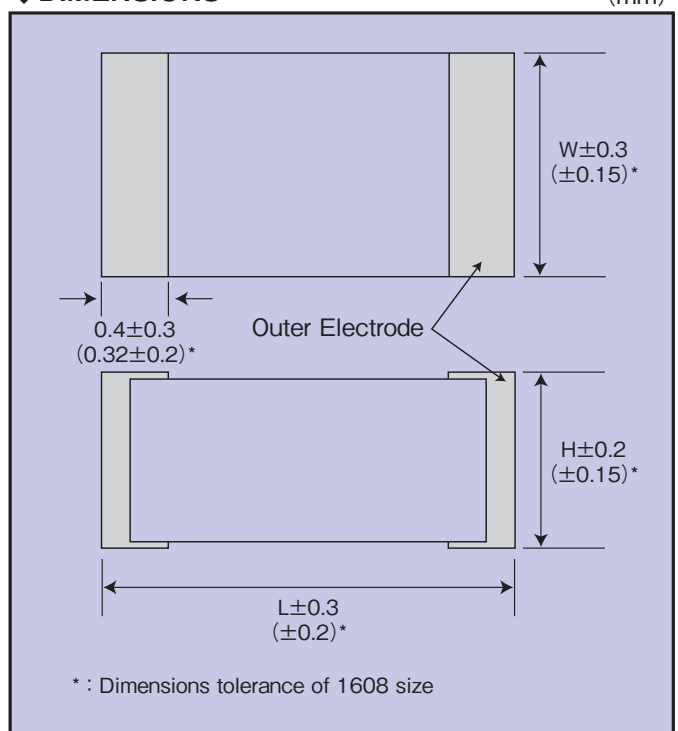
□:Tolerance

| Rated Voltage<br>(Vdc) | Capacitance<br>(μF) | Size      |           |           | Part No.        |
|------------------------|---------------------|-----------|-----------|-----------|-----------------|
|                        |                     | L<br>(mm) | W<br>(mm) | H<br>(mm) |                 |
| 16                     | 0.047               | 1.6       | 0.8       | 0.65      | 16MU473□Y11608  |
|                        | 0.15                | 2.0       | 1.25      | 1.0       | 16MU154□Z22012  |
|                        | 0.22                | 2.0       | 1.25      | 1.0       | 16MU224□Z22012  |
|                        | 1.0                 | 3.2       | 1.6       | 1.4       | 16MU105□A23216  |
|                        | 1.5                 | 3.2       | 1.6       | 1.4       | 16MU155□A23216  |
|                        | 2.2                 | 3.2       | 2.5       | 1.8       | 16MU225□B23225  |
|                        | 3.3                 | 3.2       | 2.5       | 2.0       | 16MU335□B33225  |
|                        | 4.7                 | 4.5       | 3.2       | 1.4       | 16MU475□C14532  |
|                        | 6.8                 | 4.5       | 3.2       | 1.8       | 16MU685□C24532  |
|                        | 10                  | 4.5       | 3.2       | 2.6       | 16MU106□C44532  |
|                        | 15                  | 5.7       | 5.0       | 1.8       | 16MU156□D15750  |
|                        | 22                  | 5.7       | 5.0       | 2.6       | 16MU226□D35750  |
| 25                     | 0.033               | 1.6       | 0.8       | 0.65      | 25MU333□Y11608  |
|                        | 0.10                | 2.0       | 1.25      | 1.0       | 25MU104□Z22012  |
|                        | 0.15                | 2.0       | 1.25      | 1.0       | 25MU154□Z22012  |
|                        | 0.68                | 3.2       | 1.6       | 1.4       | 25MU684□A23216  |
|                        | 1.0                 | 3.2       | 1.6       | 1.4       | 25MU105□A23216  |
|                        | 1.5                 | 3.2       | 2.5       | 2.0       | 25MU155□B33225  |
|                        | 2.2                 | 3.2       | 2.5       | 1.8       | 25MU225□B23225  |
|                        | 3.3                 | 4.5       | 3.2       | 1.4       | 25MU335□C14532  |
|                        | 4.7                 | 4.5       | 3.2       | 1.8       | 25MU475□C24532  |
|                        | 6.8                 | 4.5       | 3.2       | 2.6       | 25MU685□C44532  |
|                        | 10                  | 5.7       | 5.0       | 1.8       | 25MU106□D15750  |
|                        | 15                  | 5.7       | 5.0       | 2.6       | 25MU156□D35750  |
| 35                     | 0.015               | 1.6       | 0.8       | 0.65      | 35MU153□Y11608  |
|                        | 0.022               | 1.6       | 0.8       | 0.65      | 35MU223□Y11608  |
|                        | 0.047               | 2.0       | 1.25      | 1.0       | 35MU473□Z22012  |
|                        | 0.068               | 2.0       | 1.25      | 0.8       | 35MU683□Z12012  |
|                        | 0.10                | 2.0       | 1.25      | 1.0       | 35MU104□Z22012  |
|                        | 0.47                | 3.2       | 1.6       | 1.0       | 35MU474□A13216  |
|                        | 0.68                | 3.2       | 1.6       | 1.4       | 35MU684□A23216  |
|                        | 1.0                 | 3.2       | 2.5       | 1.4       | 35MU105□B13225  |
|                        | 1.5                 | 3.2       | 2.5       | 2.0       | 35MU155□B33225  |
|                        | 2.2                 | 4.5       | 3.2       | 1.4       | 35MU225□C14532  |
|                        | 3.3                 | 4.5       | 3.2       | 1.8       | 35MU335□C24532  |
|                        | 4.7                 | 4.5       | 3.2       | 2.6       | 35MU475□C44532  |
| 50                     | 0.00010             | 1.6       | 0.8       | 0.65      | 50MU101□Y11608  |
|                        | 0.00015             | 1.6       | 0.8       | 0.65      | 50MU151□Y11608  |
|                        | 0.00022             | 1.6       | 0.8       | 0.65      | 50MU221□Y11608  |
|                        | 0.00033             | 1.6       | 0.8       | 0.65      | 50MU331□Y11608  |
|                        | 0.00047             | 1.6       | 0.8       | 0.65      | 50MU471□Y11608  |
|                        | 0.00068             | 1.6       | 0.8       | 0.65      | 50MU681□Y11608  |
|                        | 0.0010              | 1.6       | 0.8       | 0.65      | 50MU102□Y11608  |
|                        | 0.0015              | 1.6       | 0.8       | 0.65      | 50MU152□Y11608  |
|                        | 0.0022              | 1.6       | 0.8       | 0.65      | 50MU222□Y11608  |
|                        | 0.0033              | 1.6       | 0.8       | 0.65      | 50MU332□Y11608  |
|                        | 0.0047              | 1.6       | 0.8       | 0.65      | 50MU472□Y11608  |
|                        | 0.0068              | 1.6       | 0.8       | 0.65      | 50MU682□Y11608  |
| 63                     | 0.00010             | 2.0       | 1.25      | 0.8       | 63MU101□Z12012  |
|                        | 0.00015             | 2.0       | 1.25      | 0.8       | 63MU151□Z12012  |
|                        | 0.00022             | 2.0       | 1.25      | 0.8       | 63MU221□Z12012  |
|                        | 0.00033             | 2.0       | 1.25      | 0.8       | 63MU331□Z12012  |
|                        | 0.00047             | 2.0       | 1.25      | 0.8       | 63MU471□Z12012  |
|                        | 0.00068             | 2.0       | 1.25      | 0.8       | 63MU681□Z12012  |
|                        | 0.0010              | 2.0       | 1.25      | 0.8       | 63MU102□Z12012  |
|                        | 0.0015              | 2.0       | 1.25      | 0.8       | 63MU152□Z12012  |
|                        | 0.0022              | 2.0       | 1.25      | 0.8       | 63MU222□Z12012  |
|                        | 0.0033              | 2.0       | 1.25      | 0.8       | 63MU332□Z12012  |
|                        | 0.0047              | 2.0       | 1.25      | 0.8       | 63MU472□Z12012  |
|                        | 0.0068              | 2.0       | 1.25      | 0.8       | 63MU682□Z12012  |
| 100                    | 0.0010              | 3.2       | 1.6       | 1.0       | 100MU102□A13216 |
|                        | 0.0015              | 3.2       | 1.6       | 1.0       | 100MU152□A13216 |
|                        | 0.0022              | 3.2       | 1.6       | 1.0       | 100MU222□A13216 |
|                        | 0.0033              | 3.2       | 1.6       | 1.0       | 100MU332□A13216 |
|                        | 0.0047              | 3.2       | 1.6       | 1.0       | 100MU472□A13216 |
|                        | 0.0068              | 3.2       | 1.6       | 1.0       | 100MU682□A13216 |
|                        | 0.010               | 3.2       | 1.6       | 1.0       | 100MU103□A13216 |
|                        | 0.015               | 3.2       | 1.6       | 1.0       | 100MU153□A13216 |
|                        | 0.022               | 3.2       | 1.6       | 1.0       | 100MU223□A13216 |
|                        | 0.033               | 3.2       | 1.6       | 1.0       | 100MU333□A13216 |
|                        | 0.047               | 3.2       | 1.6       | 1.4       | 100MU473□A23216 |
|                        | 0.068               | 3.2       | 2.5       | 1.4       | 100MU683□B13225 |

| Rated Voltage<br>(Vdc) | Capacitance<br>(μF) | Size      |           |           | Part No.        |
|------------------------|---------------------|-----------|-----------|-----------|-----------------|
|                        |                     | L<br>(mm) | W<br>(mm) | H<br>(mm) |                 |
| 16                     | 0.047               | 1.6       | 0.8       | 0.65      | 16MU473□Y11608  |
|                        | 0.15                | 2.0       | 1.25      | 1.0       | 16MU154□Z22012  |
|                        | 0.22                | 2.0       | 1.25      | 1.0       | 16MU224□Z22012  |
|                        | 1.0                 | 3.2       | 1.6       | 1.4       | 16MU105□A23216  |
|                        | 1.5                 | 3.2       | 1.6       | 1.4       | 16MU155□A23216  |
|                        | 2.2                 | 3.2       | 2.5       | 1.8       | 16MU225□B23225  |
|                        | 3.3                 | 3.2       | 2.5       | 2.0       | 16MU335□B33225  |
|                        | 4.7                 | 4.5       | 3.2       | 1.4       | 16MU475□C14532  |
|                        | 6.8                 | 4.5       | 3.2       | 1.8       | 16MU685□C24532  |
|                        | 10                  | 4.5       | 3.2       | 2.6       | 16MU106□C44532  |
|                        | 15                  | 5.7       | 5.0       | 1.8       | 16MU156□D15750  |
|                        | 22                  | 5.7       | 5.0       | 2.6       | 16MU226□D35750  |
| 25                     | 0.033               | 1.6       | 0.8       | 0.65      | 25MU333□Y11608  |
|                        | 0.10                | 2.0       | 1.25      | 1.0       | 25MU104□Z22012  |
|                        | 0.15                | 2.0       | 1.25      | 1.0       | 25MU154□Z22012  |
|                        | 0.68                | 3.2       | 1.6       | 1.4       | 25MU684□A23216  |
|                        | 1.0                 | 3.2       | 1.6       | 1.4       | 25MU105□A23216  |
|                        | 1.5                 | 3.2       | 2.5       | 2.0       | 25MU155□B33225  |
|                        | 2.2                 | 3.2       | 2.5       | 1.8       | 25MU225□B23225  |
|                        | 3.3                 | 4.5       | 3.2       | 1.4       | 25MU335□C14532  |
|                        | 4.7                 | 4.5       | 3.2       | 1.8       | 25MU475□C24532  |
|                        | 6.8                 | 4.5       | 3.2       | 2.6       | 25MU685□C44532  |
|                        | 10                  | 5.7       | 5.0       | 1.8       | 25MU106□D15750  |
|                        | 15                  | 5.7       | 5.0       | 2.6       | 25MU156□D35750  |
| 35                     | 0.015               | 1.6       | 0.8       | 0.65      | 35MU153□Y11608  |
|                        | 0.022               | 1.6       | 0.8       | 0.65      | 35MU223□Y11608  |
|                        | 0.047               | 2.0       | 1.25      | 1.0       | 35MU473□Z22012  |
|                        | 0.068               | 2.0       | 1.25      | 0.8       | 35MU683□Z12012  |
|                        | 0.10                | 2.0       | 1.25      | 1.0       | 35MU104□Z22012  |
|                        | 0.47                | 3.2       | 1.6       | 1.0       | 35MU474□A13216  |
|                        | 0.68                | 3.2       | 1.6       | 1.4       | 35MU684□A23216  |
|                        | 1.0                 | 3.2       | 2.5       | 1.4       | 35MU105□B13225  |
|                        | 1.5                 | 3.2       | 2.5       | 2.0       | 35MU155□B33225  |
|                        | 2.2                 | 4.5       | 3.2       | 1.4       | 35MU225□C14532  |
|                        | 3.3                 | 4.5       | 3.2       | 1.8       | 35MU335□C24532  |
|                        | 4.7                 | 4.5       | 3.2       | 2.6       | 35MU475□C44532  |
| 50                     | 0.00010             | 1.6       | 0.8       | 0.65      | 50MU101□Y11608  |
|                        | 0.00015             | 1.6       | 0.8       | 0.65      | 50MU151□Y11608  |
|                        | 0.00022             | 1.6       | 0.8       | 0.65      | 50MU221□Y11608  |
|                        | 0.00033             | 1.6       | 0.8       | 0.65      | 50MU331□Y11608  |
|                        | 0.00047             | 1.6       | 0.8       | 0.65      | 50MU471□Y11608  |
|                        | 0.00068             | 1.6       | 0.8       | 0.65      | 50MU681□Y11608  |
|                        | 0.0010              | 1.6       | 0.8       | 0.65      | 50MU102□Y11608  |
|                        | 0.0015              | 1.6       | 0.8       | 0.65      | 50MU152□Y11608  |
|                        | 0.0022              | 1.6       | 0.8       | 0.65      | 50MU222□Y11608  |
|                        | 0.0033              | 1.6       | 0.8       | 0.65      | 50MU332□Y11608  |
|                        | 0.0047              | 1.6       | 0.8       | 0.65      | 50MU472□Y11608  |
|                        | 0.0068              | 1.6       | 0.8       | 0.65      | 50MU682□Y11608  |
| 63                     | 0.00010             | 2.0       | 1.25      | 0.8       | 63MU101□Z12012  |
|                        | 0.00015             | 2.0       | 1.25      | 0.8       | 63MU151□Z12012  |
|                        | 0.00022             | 2.0       | 1.25      | 0.8       | 63MU221□Z12012  |
|                        | 0.00033             | 2.0       | 1.25      | 0.8       | 63MU331□Z12012  |
|                        | 0.00047             | 2.0       | 1.25      | 0.8       | 63MU471□Z12012  |
|                        | 0.00068             | 2.0       | 1.25      | 0.8       | 63MU681□Z12012  |
|                        | 0.0010              | 2.0       | 1.25      | 0.8       | 63MU102□Z12012  |
|                        | 0.0015              | 2.0       | 1.25      | 0.8       | 63MU152□Z12012  |
|                        | 0.0022              | 2.0       | 1.25      | 0.8       | 63MU222□Z12012  |
|                        | 0.0033              | 2.0       | 1.25      | 0.8       | 63MU332□Z12012  |
|                        | 0.0047              | 2.0       | 1.25      | 0.8       | 63MU472□Z12012  |
|                        | 0.0068              | 2.0       | 1.25      | 0.8       | 63MU682□Z12012  |
| 100                    | 0.0010              | 3.2       | 1.6       | 1.0       | 100MU102□A13216 |
|                        | 0.0015              | 3.2       | 1.6       | 1.0       | 100MU152□A13216 |
|                        | 0.0022              | 3.2       | 1.6       | 1.0       | 100MU222□A13216 |
|                        | 0.0033              | 3.2       | 1.6       | 1.0       | 100MU332□A13216 |
|                        | 0.0047              | 3.2       | 1.6       | 1.0       | 100MU472□A13216 |
|                        | 0.0068              | 3.2       | 1.6       | 1.0       | 100MU682□A13216 |
|                        | 0.010               | 3.2       | 1.6       | 1.0       | 100MU103□A13216 |
|                        | 0.015               | 3.2       | 1.6       | 1.0       | 100MU153□A13216 |
|                        | 0.022               | 3.2       | 1.6       | 1.0       | 100MU223□A13216 |
|                        | 0.033               | 3.2       | 1.6       | 1.0       | 100MU333□A13216 |
|                        | 0.047               | 3.2       | 1.6       | 1.4       | 100MU473□A23216 |
|                        | 0.068               | 3.2       | 2.5       | 1.4       | 100MU683□B13225 |

◆DIMENSIONS

(mm)



Size Code Conversion

| mm   | inch |
|------|------|
| 1608 | 0603 |
| 2012 | 0805 |
| 3216 | 1206 |
| 3225 | 1210 |
| 4532 | 1812 |
| 5750 | 2220 |