

Overview

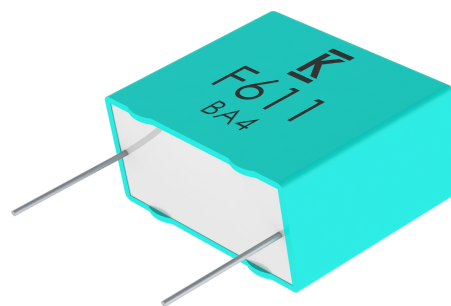
The F611 and F612 are constructed of metallized wound or stacked polyester film capacitor with radial leads of tinned wire. Radial leads are electrically welded to the contact metal layer on the ends of the capacitor winding. The capacitor is encapsulated in a self-extinguishing material meeting the requirements of UL 94V-0.

Applications

Typical applications include blocking, coupling, decoupling, bypassing and interference suppression in low voltage applications such as automotive. Not for use with the mains.

Benefits

- Voltage range: 50 – 1,000 VDC
- Capacitance range: 0.001 – 180 μ F
- Lead spacing: 5 – 37.5 mm
- Capacitance tolerance: \pm 10%, \pm 20%, \pm 5% on request
- Climatic category: 55/105/56, IEC 60068-1
- Tape & Reel packaging in accordance with IEC 60286-2
- RoHS compliant and lead-free terminations
- Operating temperature range of -55°C to +105°C



Part Number System

| F | 611 | J | F | 104 | M | 050 | C |
|-----------------|--|--|---------------------|--|--|--|----------------------------|
| Capacitor Class | Series | Lead Spacing (mm) | Size Code | Capacitance Code (pF) | Capacitance Tolerance | Rated Voltage (VDC) | Packaging |
| F = Film | Metallized polyester 611 = Wound 612 = Stacked | J = 5 K = 7.5 A = 10.0 B = 15.0 D = 22.5 F = 27.5 R = 37.5 | See Dimension Table | First two digits represent significant figures. Third digit specifies number of zeros. | J = \pm 5% K = \pm 10% M = \pm 20% | 050 = 50 063 = 63 100 = 100 160 = 160 250 = 250 400 = 400 630 = 630 1K0 = 1,000 | See Ordering Options Table |

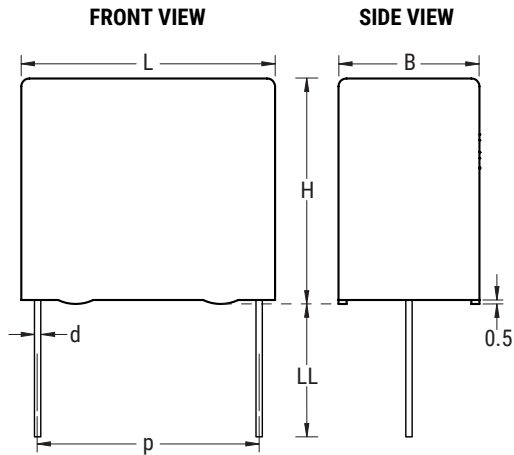
Ordering Options Table

| Lead Spacing Nominal (mm) | Type of Leads and Packaging | Lead Length (mm) | Lead and Packaging Code |
|---------------------------|---|----------------------------|-------------------------|
| 5 | Standard lead and packaging options: | | |
| | Bulk (bag) – short leads | 4 +2/-0 | C |
| | Bulk (bag) – long leads | 17 +0/-1 | A |
| | Tape & Reel (standard reel) | H ₀ = 18.5 ±0.5 | L |
| | Other lead and packaging options: | | |
| | Bulk (bag) – maximum length leads | 20 +5/-0 | ALL0L |
| | Ammo pack | H ₀ = 18.5 ±0.5 | R |
| 7.5 | Standard lead and packaging options: | | |
| | Bulk (bag) – short leads | 4 +2/-0 | C |
| | Bulk (bag) – long leads | 17 +0/-1 | A |
| | Tape & Reel (standard reel) | H ₀ = 18.5 ±0.5 | L |
| | Other lead and packaging options: | | |
| | Bulk (bag) – maximum length leads | 20 +5/-0 | ALL0L |
| | Ammo pack | H ₀ = 18.5 ±0.5 | R |
| 10 | Standard lead and packaging options: | | |
| | Bulk (bag) – short leads | 4 +2/-0 | C |
| | Bulk (bag) – long leads | 17 +0/-1 | A |
| | Tape & Reel (standard reel) | H ₀ = 18.5 ±0.5 | L |
| | Other lead and packaging options: | | |
| | Bulk (bag) – maximum length leads | 20 +5/-0 | ALL0L |
| | Ammo pack | H ₀ = 18.5 ±0.5 | R |
| Tape & Reel (large reel) | H ₀ = 18.5 ±0.5 | P | |
| 15 | Standard lead and packaging options: | | |
| | Bulk (bag) – short leads | 4 +2/-0 | C |
| | Bulk (bag) – long leads | 17 +0/-1 | A |
| | Tape & Reel (standard reel) | H ₀ = 18.5 ±0.5 | L |
| | Pizza pack | 4 +2/-0 | Z |
| | Other lead and packaging options: | | |
| | Bulk (bag) – maximum length leads | 25 +5/-0 | ALR0L |
| | Ammo pack | H ₀ = 18.5 ±0.5 | R |
| Tape & Reel (large reel) | H ₀ = 18.5 ±0.5 | P | |

Ordering Options Table cont.

| Lead Spacing Nominal (mm) | Type of Leads and Packaging | Lead Length (mm) | Lead and Packaging Code |
|---------------------------|---|----------------------|-------------------------|
| 22.5 | Standard lead and packaging options: | | |
| | Pizza – long leads | 17 +0/-1 | ZLH0J |
| | Pizza pack | 4 +2/-0 | Z |
| | Other lead and packaging options: | | |
| | Tape & Reel (standard reel) | $H_0 = 18.5 \pm 0.5$ | L |
| | Tape & Reel (large reel) | $H_0 = 18.5 \pm 0.5$ | P |
| | Ammo pack | $H_0 = 18.5 \pm 0.5$ | R |
| 27.5 | Standard lead and packaging options: | | |
| | Pizza – long leads | 17 +0/-1 | ZLH0J |
| | Pizza pack | 4 +2/-0 | Z |
| 37.5 | Standard lead and packaging options: | | |
| | Pizza – long leads | 17 +0/-1 | ZLH0J |
| | Pizza pack | 4 +2/-0 | Z |

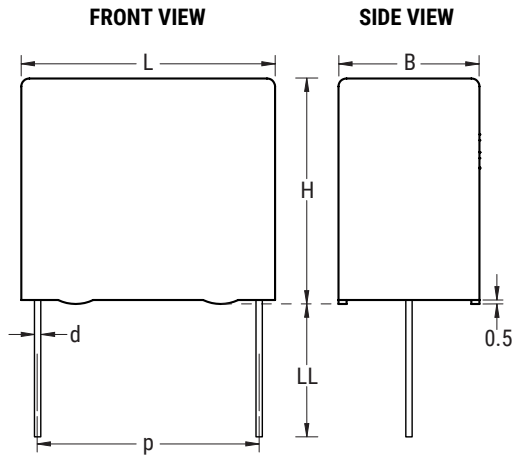
Dimensions – Millimeters



| Size Code | p | | B | | H | | L | | d | |
|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|
| | Nominal | Tolerance | Nominal | Tolerance | Nominal | Tolerance | Nominal | Tolerance | Nominal | Tolerance |
| JF | 5.0 | ±0.4 | 2.5 | Maximum | 6.5 | Maximum | 7.2 | Maximum | 0.5 | ±0.05 |
| JG | 5.0 | ±0.4 | 3.5 | Maximum | 7.5 | Maximum | 7.2 | Maximum | 0.5 | ±0.05 |
| JM | 5.0 | ±0.4 | 4.5 | Maximum | 9.5 | Maximum | 7.2 | Maximum | 0.5 | ±0.05 |
| JQ | 5.0 | ±0.4 | 5.0 | Maximum | 10.0 | Maximum | 7.2 | Maximum | 0.5 | ±0.05 |
| JT | 5.0 | ±0.4 | 6.0 | Maximum | 11.0 | Maximum | 7.2 | Maximum | 0.5 | ±0.05 |
| JU | 5.0 | ±0.4 | 7.2 | Maximum | 13.0 | Maximum | 7.2 | Maximum | 0.5 | ±0.05 |
| KE | 7.5 | ±0.4 | 2.5 | Maximum | 6.0 | Maximum | 10.0 | Maximum | 0.6 | ±0.05 |
| KF | 7.5 | ±0.4 | 3.0 | Maximum | 8.0 | Maximum | 10.0 | Maximum | 0.6 | ±0.05 |
| KG | 7.5 | ±0.4 | 4.0 | Maximum | 8.0 | Maximum | 10.0 | Maximum | 0.6 | ±0.05 |
| KH | 7.5 | ±0.4 | 4.0 | Maximum | 9.0 | Maximum | 10.0 | Maximum | 0.6 | ±0.05 |
| KJ | 7.5 | ±0.4 | 5.0 | Maximum | 10.5 | Maximum | 10.0 | Maximum | 0.6 | ±0.05 |
| KM | 7.5 | ±0.4 | 6.0 | Maximum | 12.0 | Maximum | 10.5 | Maximum | 0.6 | ±0.05 |
| AG | 10.0 | ±0.4 | 4.0 | Maximum | 9.0 | Maximum | 13.0 | Maximum | 0.6 | ±0.05 |
| AK | 10.0 | ±0.4 | 5.0 | Maximum | 11.0 | Maximum | 13.0 | Maximum | 0.6 | ±0.05 |
| AP | 10.0 | ±0.4 | 6.0 | Maximum | 12.0 | Maximum | 13.0 | Maximum | 0.6 | ±0.05 |
| AO | 10.0 | ±0.4 | 7.0 | Maximum | 17.0 | Maximum | 13.0 | Maximum | 0.6 | ±0.05 |
| BB | 15.0 | ±0.4 | 4.0 | Maximum | 10.0 | Maximum | 18.0 | Maximum | 0.8 | ±0.05 |
| BC | 15.0 | ±0.4 | 5.0 | Maximum | 11.0 | Maximum | 18.0 | Maximum | 0.8 | ±0.05 |
| BE | 15.0 | ±0.4 | 5.5 | Maximum | 12.5 | Maximum | 18.0 | Maximum | 0.8 | ±0.05 |
| BG | 15.0 | ±0.4 | 6.0 | Maximum | 12.0 | Maximum | 18.0 | Maximum | 0.8 | ±0.05 |
| BK | 15.0 | ±0.4 | 7.5 | Maximum | 13.5 | Maximum | 18.0 | Maximum | 0.8 | ±0.05 |
| BP | 15.0 | ±0.4 | 8.5 | Maximum | 14.5 | Maximum | 18.0 | Maximum | 0.8 | ±0.05 |
| BS | 15.0 | ±0.4 | 10.0 | Maximum | 16.0 | Maximum | 18.0 | Maximum | 0.8 | ±0.05 |
| BY | 15.0 | ±0.4 | 11.0 | Maximum | 19.0 | Maximum | 18.0 | Maximum | 0.8 | ±0.05 |
| DB | 22.5 | ±0.4 | 6.0 | Maximum | 14.5 | Maximum | 26.0 | Maximum | 0.8 | ±0.05 |
| DI | 22.5 | ±0.4 | 7.0 | Maximum | 16.0 | Maximum | 26.0 | Maximum | 0.8 | ±0.05 |
| DH | 22.5 | ±0.4 | 8.0 | Maximum | 16.0 | Maximum | 26.0 | Maximum | 0.8 | ±0.05 |
| DJ | 22.5 | ±0.4 | 8.5 | Maximum | 17.0 | Maximum | 26.0 | Maximum | 0.8 | ±0.05 |
| DM | 22.5 | ±0.4 | 9.0 | Maximum | 18.5 | Maximum | 26.0 | Maximum | 0.8 | ±0.05 |

Note: See Ordering Options Table for lead length (LL) options.

Dimensions – Millimeters cont.



| Size Code | p | | B | | H | | L | | d | |
|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|
| | Nominal | Tolerance | Nominal | Tolerance | Nominal | Tolerance | Nominal | Tolerance | Nominal | Tolerance |
| DO | 22.5 | ±0.4 | 10.0 | Maximum | 18.5 | Maximum | 26.0 | Maximum | 0.8 | ±0.05 |
| DP | 22.5 | ±0.4 | 11.0 | Maximum | 20.0 | Maximum | 26.0 | Maximum | 0.8 | ±0.05 |
| DU | 22.5 | ±0.4 | 13.0 | Maximum | 22.0 | Maximum | 26.0 | Maximum | 0.8 | ±0.05 |
| DY | 22.5 | ±0.4 | 15.5 | Maximum | 24.5 | Maximum | 26.0 | Maximum | 0.8 | ±0.05 |
| FB | 27.5 | ±0.4 | 9.0 | Maximum | 17.0 | Maximum | 31.5 | Maximum | 0.8 | ±0.05 |
| FC | 27.5 | ±0.4 | 11.0 | Maximum | 20.0 | Maximum | 31.5 | Maximum | 0.8 | ±0.05 |
| FI | 27.5 | ±0.4 | 13.0 | Maximum | 25.0 | Maximum | 31.5 | Maximum | 0.8 | ±0.05 |
| FN | 27.5 | ±0.4 | 14.0 | Maximum | 28.0 | Maximum | 31.5 | Maximum | 0.8 | ±0.05 |
| FR | 27.5 | ±0.4 | 17.5 | Maximum | 28.0 | Maximum | 31.5 | Maximum | 0.8 | ±0.05 |
| FS | 27.5 | ±0.4 | 19.0 | Maximum | 29.0 | Maximum | 31.5 | Maximum | 0.8 | ±0.05 |
| FY | 27.5 | ±0.4 | 22.0 | Maximum | 37.0 | Maximum | 31.5 | Maximum | 0.8 | ±0.05 |
| RB | 37.5 | ±0.4 | 11.0 | Maximum | 22.0 | Maximum | 41.0 | Maximum | 1.0 | ±0.05 |
| RF | 37.5 | ±0.4 | 13.0 | Maximum | 24.0 | Maximum | 41.0 | Maximum | 1.0 | ±0.05 |
| RH | 37.5 | ±0.4 | 15.0 | Maximum | 26.0 | Maximum | 41.0 | Maximum | 1.0 | ±0.05 |
| RC | 37.5 | ±0.4 | 16.0 | Maximum | 28.5 | Maximum | 41.0 | Maximum | 1.0 | ±0.05 |
| RD | 37.5 | ±0.4 | 19.0 | Maximum | 32.0 | Maximum | 41.0 | Maximum | 1.0 | ±0.05 |
| RP | 37.5 | ±0.4 | 21.0 | Maximum | 38.0 | Maximum | 41.0 | Maximum | 1.0 | ±0.05 |
| RO | 37.5 | ±0.4 | 24.0 | Maximum | 44.0 | Maximum | 41.0 | Maximum | 1.0 | ±0.05 |
| RU | 37.5 | ±0.4 | 30.0 | Maximum | 45.0 | Maximum | 41.0 | Maximum | 1.0 | ±0.05 |

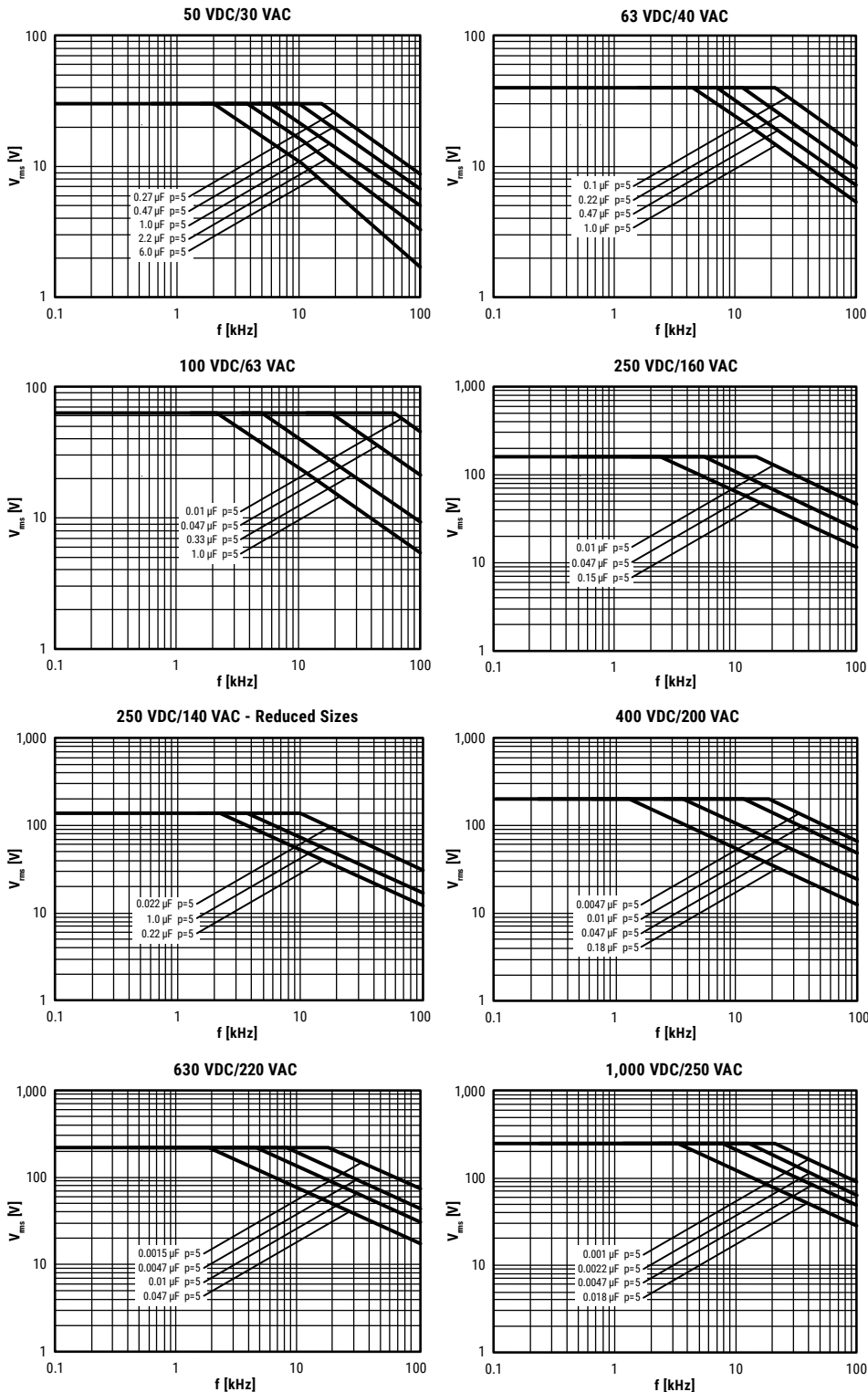
Note: See Ordering Options Table for lead length (LL) options.

Performance Characteristics

| | | | | | | | | |
|----------------------------------|---|-------------|---------------------------|--|-----------------------|--------------|---------------|-------------|
| Rated voltage V_R VDC | 50 | 63 | 100 | 160 | 250 | 400 | 630 | 1,000 |
| Rated voltage V_R VAC | 30 | 40 | 63 | 90 | 160/140 | 200 | 220 | 250 |
| Capacitance range, μF | 0.33-15.0 | 0.1 – 180.0 | 0.001 – 180.0 | 0.18 – 120.0 | 0.0068 – 82.0 | 0.001 – 33.0 | 0.0012 – 12.0 | 0.001 – 5.6 |
| Capacitance tolerance | $\pm 10\%$, $\pm 20\%$, $\pm 5\%$ on request | | | | | | | |
| Temperature range | -55°C to +105°C | | | | | | | |
| Voltage derating | Above +85°C DC and AC voltage derating is 1.25%/°C | | | | | | | |
| Rated temperature | +85°C | | | | | | | |
| Climatic Category | IEC60068-1, 55/105/56 | | | | | | | |
| | -55 to +105°C (For +125°C, please consult KEMET) | | | | | | | |
| | Average relative humidity $\leq 75\%$ | | | | | | | |
| | RH = 95% for 30 days per year | | | | | | | |
| | RH = 85% for further days limited by average value per year | | | | | | | |
| Test voltage | 1.6 x V_R VDC for 2 seconds (p. > 5mm) 1.4 x V_R VDC for 2 seconds (p. = 5mm) | | | | | | | |
| Capacitance drift | Maximum 2% after a two year storage period, at a temperature of +10°C to +40°C and a relative humidity of 40% to 60% | | | | | | | |
| Reliability | Operational life > 200,000 hours | | | | | | | |
| | Failure rate < 3 FIT, T = +40°C, V = 0.5 x V_R | | | | | | | |
| | Failure criteria: open circuit, short circuit, cap change > 10%, DF two times the catalog limits, IR < 50M Ω | | | | | | | |
| Maximum pulse steepness | dV/dt according to Table 1. For peak-to-peak voltages lower than rated voltage ($V_{pp} < V_R$), the specified dV/dt can be multiplied by the factor V_R/V_{pp} . | | | | | | | |
| Temperature coefficient | +400 (± 200) ppm/°C at 1 kHz | | | | | | | |
| Self inductance | Approximately 6 nH/cm for the total length of capacitor winding and the leads | | | | | | | |
| Dissipation factor $\tan\delta$ | Maximum Values at +23°C | | | | | | | |
| | | | $C \leq 0.1 \mu\text{F}$ | $0.1 \mu\text{F} < C \leq 1.0 \mu\text{F}$ | $C > 1.0 \mu\text{F}$ | | | |
| Lead spacing 5 mm | 1 kHz | | 0.8% | 0.8% | 0.8% | | | |
| | 10 kHz | | 1.2% | 1.2% | 1.5% | | | |
| | 100 kHz | | 2.5% | | | | | |
| Lead spacing 7.5 – 37.5 mm | 1 kHz | | 0.8% | 0.8% | 1.2% | | | |
| | 10 kHz | | 1.5% | 1.5% | | | | |
| | 100 kHz | | 3.0% | | | | | |
| Insulation resistance | Measured at +20°C, according to IEC 60384-2 | | | | | | | |
| | Minimum Values Between Terminals | | | | | | | |
| | | | $C \leq 0.33 \mu\text{F}$ | $C > 0.33 \mu\text{F}$ | | | | |
| | $V_R \leq 100$ VDC | | 15,000 M Ω | 5,000 M $\Omega \cdot \mu\text{F}$ | | | | |
| | $V_R > 100$ VDC | | 30,000 M Ω | 10,000 M $\Omega \cdot \mu\text{F}$ | | | | |

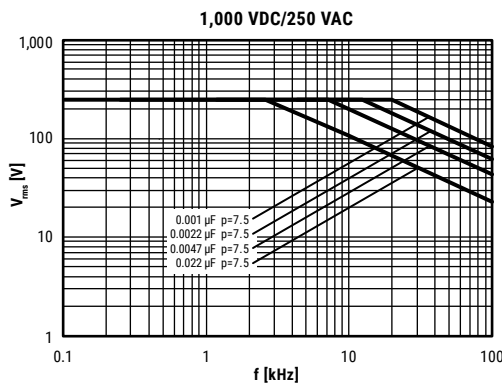
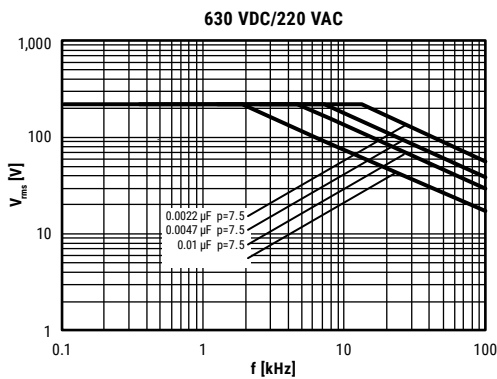
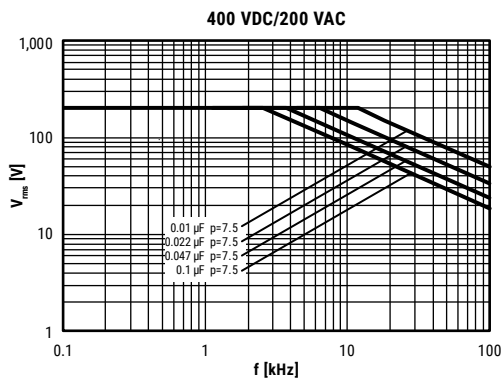
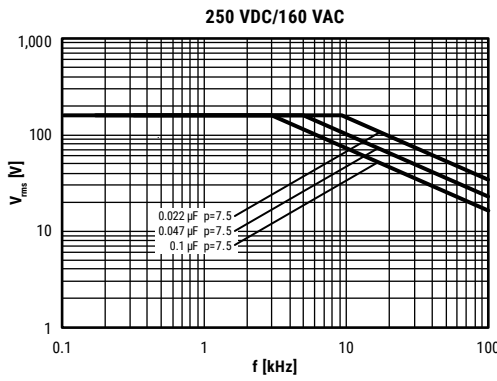
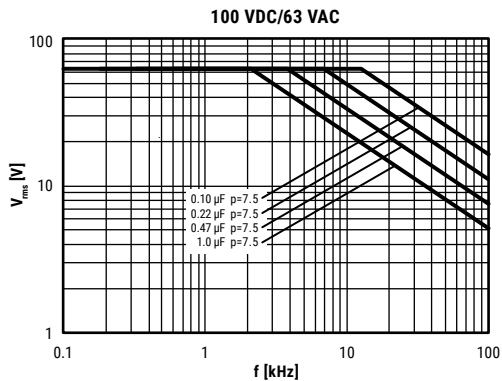
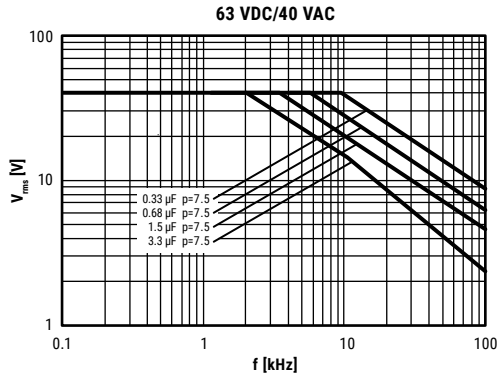
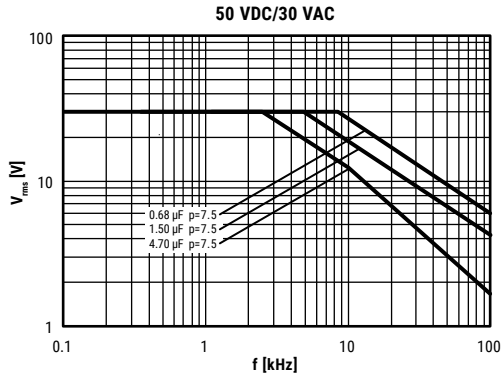
Maximum Voltage (V_{rms}) vs. Frequency (sinusoidal wave-form/Th $\leq 40^\circ\text{C}$)

Lead spacing 5.0 mm



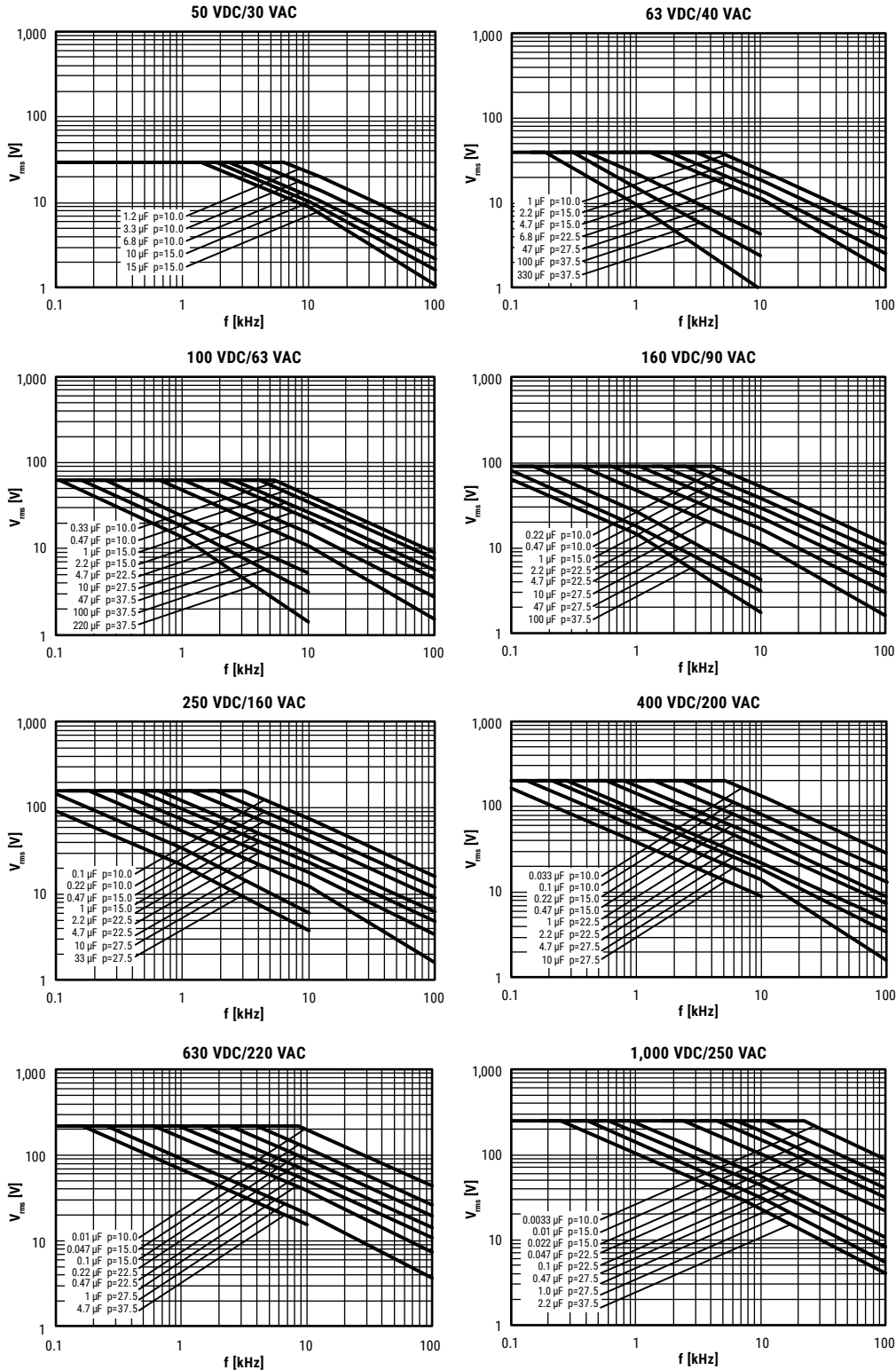
Maximum Voltage (V_{rms}) vs. Frequency (sinusoidal wave-form/Th $\leq 40^{\circ}\text{C}$)

Lead spacing 7.5 mm



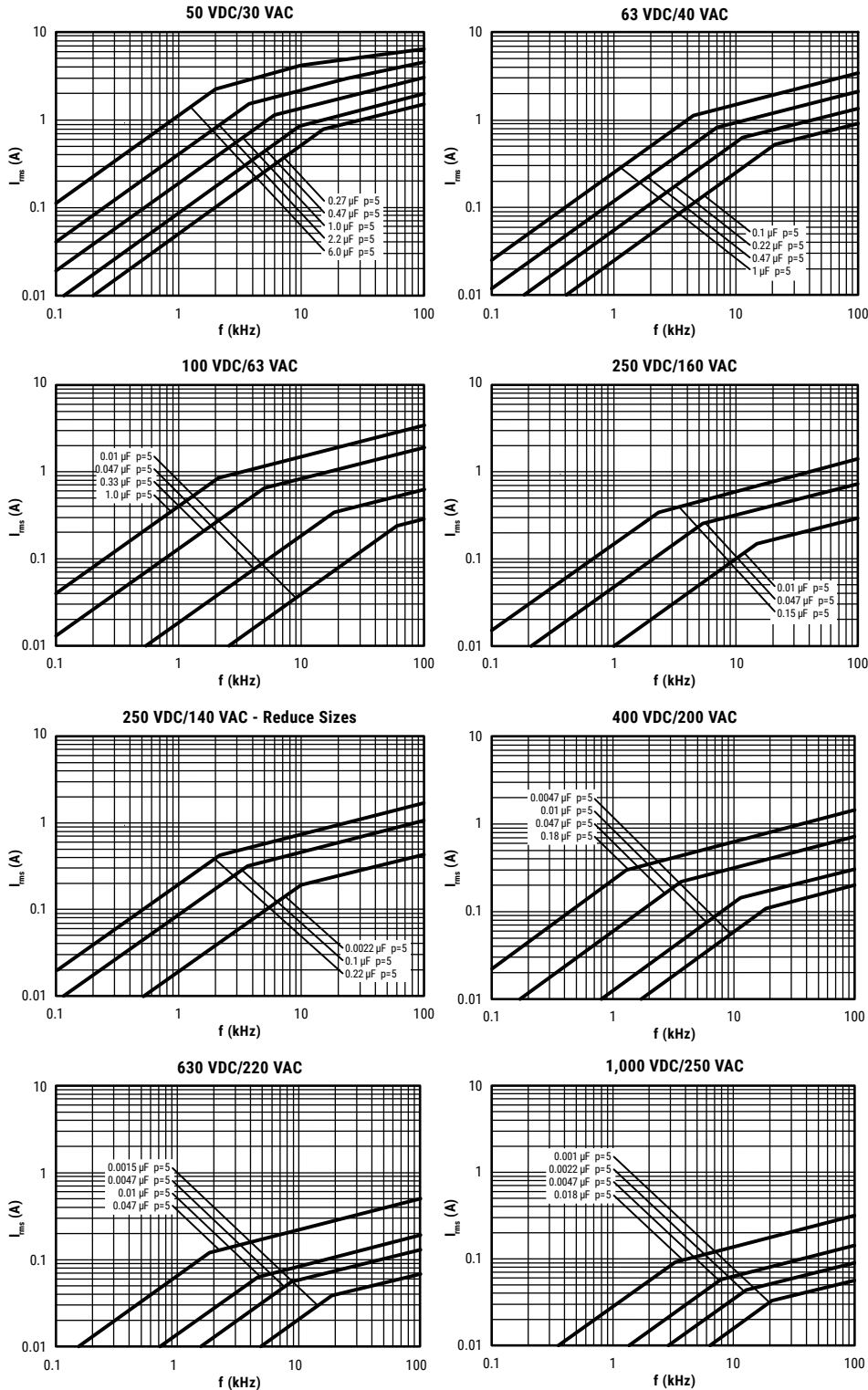
Maximum Voltage (V_{rms}) vs. Frequency (sinusoidal wave-form/Th \leq 40°C)

Lead spacing 10.0 – 37.5 mm



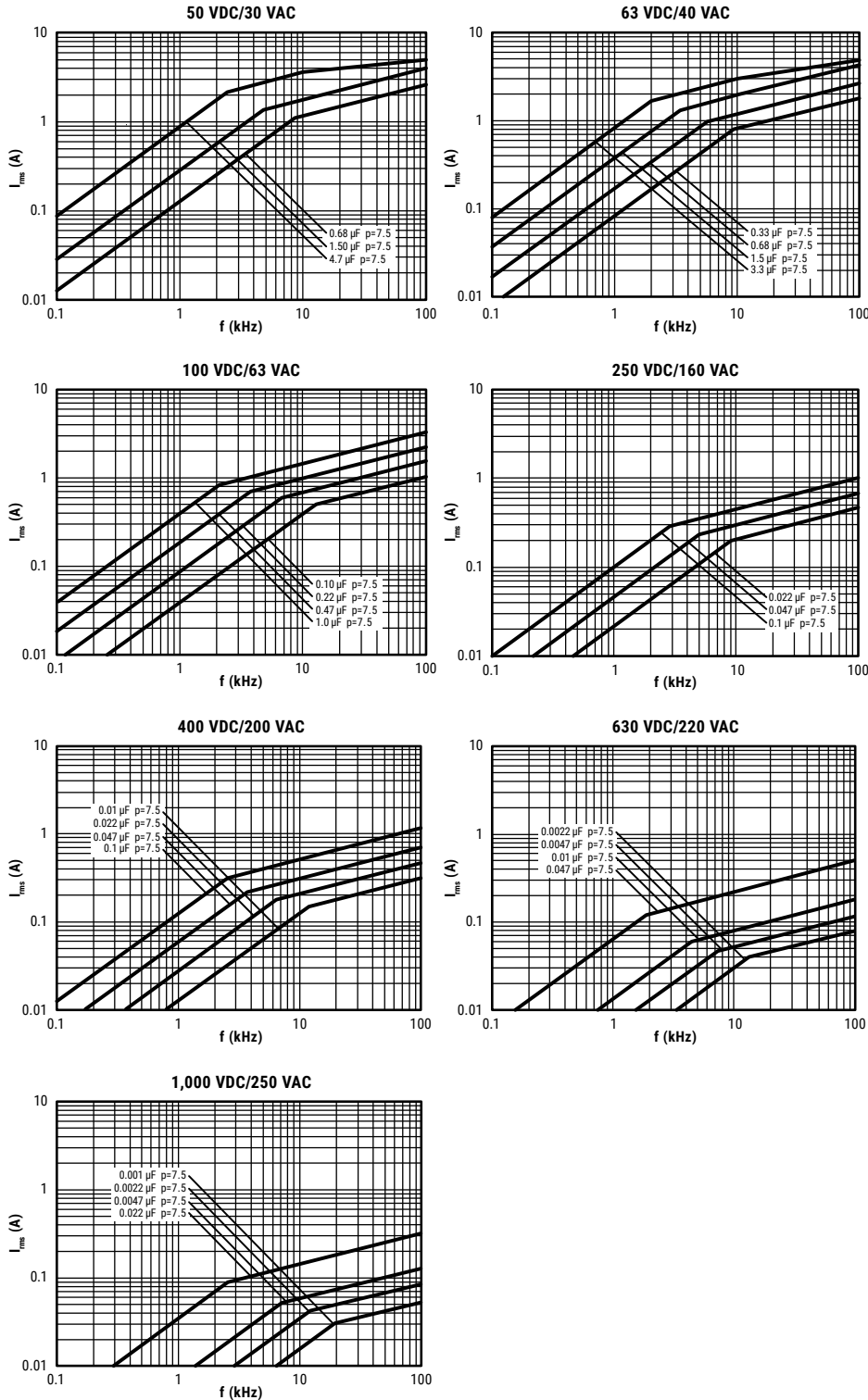
Maximum Current (I_{rms}) vs. Frequency (sinusoidal wave-form/Th $\leq 40^{\circ}\text{C}$)

Lead spacing 5.0 mm



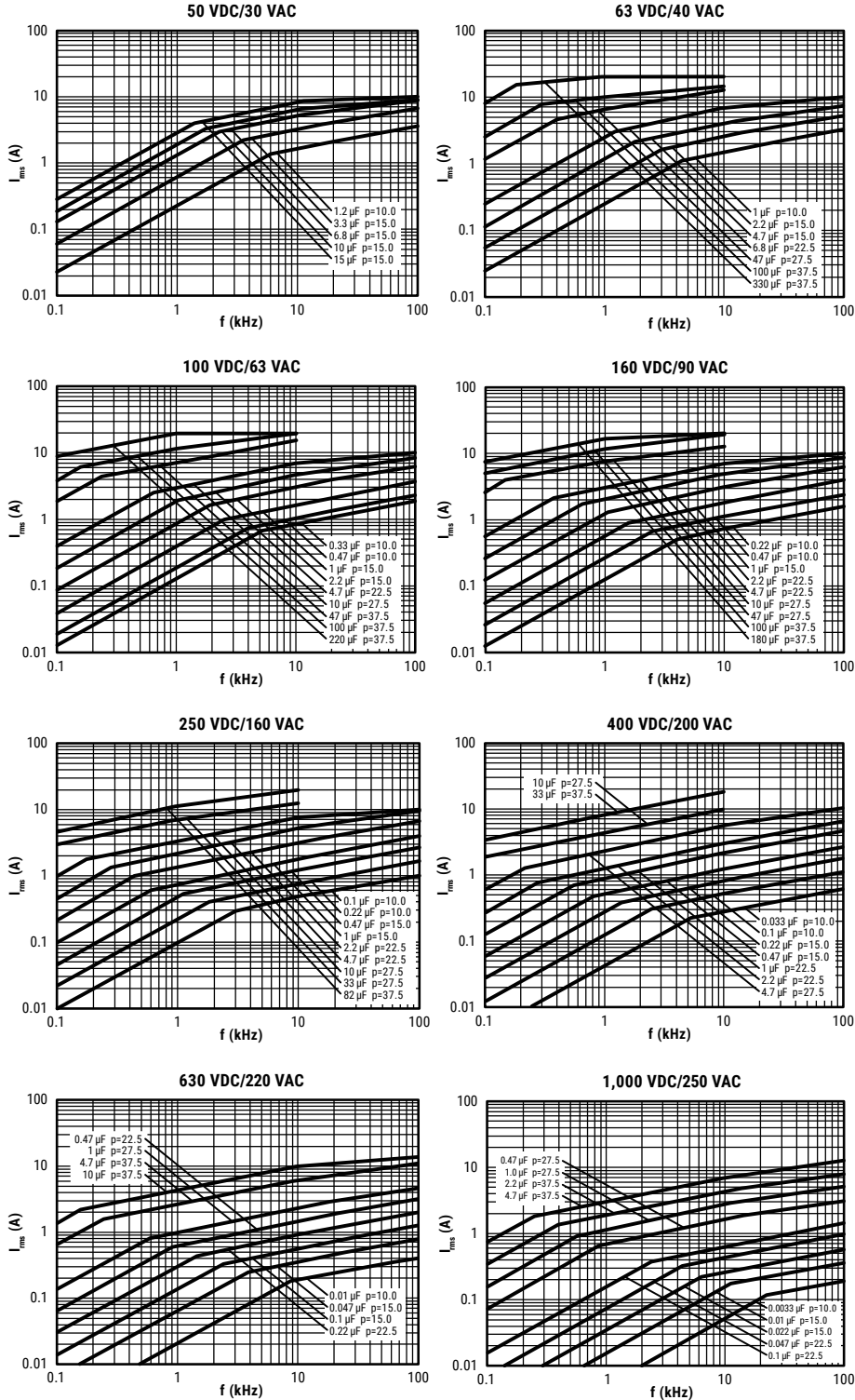
Maximum Current (I_{rms}) vs. Frequency (sinusoidal wave-form/Th $\leq 40^{\circ}\text{C}$)

Lead spacing 7.5 mm



Maximum Current (I_{rms}) vs. Frequency (sinusoidal wave-form/Th $\leq 40^\circ\text{C}$)

Lead spacing 10.0 – 37.5 mm



Environmental Test Data

| Damp Heat Test | Test Conditions | T = +40°C, RH = 93%, t = 56 days |
|----------------|-----------------|--|
| | Test Criteria | $\Delta C/C \leq \pm 5\%$ $\Delta \tan\delta \leq 0.005$ (1 kHz) IR after test 0.5 x IR minimum |
| Endurance Test | Test Conditions | T = +100°C, U = 1.25 x (0.8 x U _R) |
| | Test Criteria | t = 2,000 hours $\Delta C/C \leq \pm 5\%$, $\Delta \tan\delta \leq 0.005$ (1 kHz) $\Delta \tan\delta \leq 0.010$ (100 kHz) IR after test 0.5 x IR minimum |

Environmental Compliance

All KEMET MKT capacitors are RoHS compliant and halogen-free.



Table 1 – Ratings & Part Number Reference

| VDC | VAC | Capacitance Value (µF) | Size Code | Maximum Dimensions in mm | | | Lead Spacing (p) | dV/dt (V/µs) | Part Number |
|-----|-----|------------------------|-----------|--------------------------|--------|--------|------------------|--------------|--------------------|
| | | | | B | H | L | | | |
| 50 | 30 | 0.27 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 12 | F611JF274(1)050(4) |
| 50 | 30 | 0.33 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 12 | F611JF334(1)050(4) |
| 50 | 30 | 0.39 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 12 | F611JF394(1)050(4) |
| 50 | 30 | 0.47 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 12 | F611JF474(1)050(4) |
| 50 | 30 | 0.56 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 12 | F611JG564(1)050(4) |
| 50 | 30 | 0.68 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 12 | F611JG684(1)050(4) |
| 50 | 30 | 0.82 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 12 | F611JG824(1)050(4) |
| 50 | 30 | 1 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 12 | F611JG105(1)050(4) |
| 50 | 30 | 1.2 | JM | 4.5 | 9.5 | 7.2 | 5.0 | 12 | F611JM125(1)050(4) |
| 50 | 30 | 1.5 | JM | 4.5 | 9.5 | 7.2 | 5.0 | 12 | F611JM155(1)050(4) |
| 50 | 30 | 1.8 | JQ | 5 | 10 | 7.2 | 5.0 | 12 | F611JQ185(1)050(4) |
| 50 | 30 | 2.2 | JQ | 5 | 10 | 7.2 | 5.0 | 12 | F611JQ225(1)050(4) |
| 50 | 30 | 2.7 | JT | 6 | 11 | 7.2 | 5.0 | 12 | F611JT275(1)050(4) |
| 50 | 30 | 3.3 | JT | 6 | 11 | 7.2 | 5.0 | 12 | F611JT335(1)050(4) |
| 50 | 30 | 3.9 | JU | 7.2 | 13 | 7.2 | 5.0 | 12 | F611JU395(1)050(4) |
| 50 | 30 | 4.7 | JU | 7.2 | 13 | 7.2 | 5.0 | 12 | F611JU475(1)050(4) |
| 50 | 30 | 5.6 | JU | 7.2 | 13 | 7.2 | 5.0 | 12 | F611JU565(1)050(4) |
| 50 | 30 | 6 | JU | 7.2 | 13 | 7.2 | 5.0 | 12 | F611JU605(1)050(4) |
| 50 | 30 | 1.8 | BB | 4 | 10 | 18 | 15.0 | 3 | F611BB185(1)050(4) |
| 50 | 30 | 2.2 | BC | 5 | 11 | 18 | 15.0 | 3 | F611BC225(1)050(4) |
| 50 | 30 | 2.7 | BC | 5 | 11 | 18 | 15.0 | 3 | F611BC275(1)050(4) |
| 50 | 30 | 3.3 | BE | 5.5 | 12.5 | 18 | 15.0 | 3 | F611BE335(1)050(4) |
| 50 | 30 | 3.9 | BE | 5.5 | 12.5 | 18 | 15.0 | 3 | F611BE395(1)050(4) |
| 50 | 30 | 4.7 | BK | 7.5 | 13.5 | 18 | 15.0 | 3 | F611BK475(1)050(4) |
| 50 | 30 | 5.6 | BK | 7.5 | 13.5 | 18 | 15.0 | 3 | F611BK565(1)050(4) |
| 50 | 30 | 6.8 | BP | 8.5 | 14.5 | 18 | 15.0 | 3 | F611BP685(1)050(4) |
| 50 | 30 | 8.2 | BP | 8.5 | 14.5 | 18 | 15.0 | 3 | F611BP825(1)050(4) |
| 50 | 30 | 10 | BS | 10 | 16 | 18 | 15.0 | 3 | F611BS106(1)050(4) |
| 50 | 30 | 12 | BY | 11 | 19 | 18 | 15.0 | 3 | F611BY126(1)050(4) |
| 50 | 30 | 15 | BY | 11 | 19 | 18 | 15.0 | 3 | F611BY156(1)050(4) |
| 63 | 40 | 0.1 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 160 | F612JF104(1)063(4) |
| 63 | 40 | 0.12 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 160 | F612JF124(1)063(4) |
| 63 | 40 | 0.15 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 160 | F612JF154(1)063(4) |
| 63 | 40 | 0.18 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 160 | F612JF184(1)063(4) |
| 63 | 40 | 0.22 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 160 | F612JF224(1)063(4) |
| 63 | 40 | 0.27 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 160 | F612JG274(1)063(4) |
| 63 | 40 | 0.33 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 160 | F612JG334(1)063(4) |
| 63 | 40 | 0.39 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 160 | F612JG394(1)063(4) |
| 63 | 40 | 0.47 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 160 | F612JG474(1)063(4) |
| 63 | 40 | 0.56 | JM | 4.5 | 9.5 | 7.2 | 5.0 | 160 | F612JM564(1)063(4) |
| 63 | 40 | 0.68 | JM | 4.5 | 9.5 | 7.2 | 5.0 | 160 | F612JM684(1)063(4) |
| 63 | 40 | 0.82 | JM | 4.5 | 9.5 | 7.2 | 5.0 | 160 | F612JM824(1)063(4) |
| 63 | 40 | 1 | JQ | 5 | 10 | 7.2 | 5.0 | 160 | F612JQ105(1)063(4) |
| 63 | 40 | 1.2 | JT | 6 | 11 | 7.2 | 5.0 | 160 | F612JT125(1)063(4) |
| 63 | 40 | 1.5 | JT | 6 | 11 | 7.2 | 5.0 | 160 | F612JT155(1)063(4) |
| 63 | 40 | 1.2 | BB | 4 | 10 | 18 | 15.0 | 5 | F611BB125(1)063(4) |
| 63 | 40 | 1.5 | BB | 4 | 10 | 18 | 15.0 | 5 | F611BB155(1)063(4) |
| 63 | 40 | 1.8 | BC | 5 | 11 | 18 | 15.0 | 5 | F611BC185(1)063(4) |
| 63 | 40 | 2.2 | BE | 5.5 | 12.5 | 18 | 15.0 | 5 | F611BE225(1)063(4) |
| 63 | 40 | 2.7 | BE | 5.5 | 12.5 | 18 | 15.0 | 5 | F611BE275(1)063(4) |
| 63 | 40 | 3.3 | BG | 6 | 12 | 18 | 15.0 | 5 | F611BG335(1)063(4) |
| 63 | 40 | 3.9 | BK | 7.5 | 13.5 | 18 | 15.0 | 5 | F611BK395(1)063(4) |
| 63 | 40 | 4.7 | BK | 7.5 | 13.5 | 18 | 15.0 | 5 | F611BK475(1)063(4) |
| 63 | 40 | 5.6 | BP | 8.5 | 14.5 | 18 | 15.0 | 5 | F611BP565(1)063(4) |
| 63 | 40 | 6.8 | BP | 8.5 | 14.5 | 18 | 15.0 | 5 | F611BP685(1)063(4) |
| 63 | 40 | 8.2 | BS | 10 | 16 | 18 | 15.0 | 5 | F611BS825(1)063(4) |
| 63 | 40 | 10 | BS | 10 | 16 | 18 | 15.0 | 5 | F611BS106(1)063(4) |
| VDC | VAC | Capacitance Value (µF) | Size Code | B (mm) | H (mm) | L (mm) | Lead Spacing (p) | dV/dt (V/µs) | Part Number |

(1) K= ±10%, M = ±20%; J = ±5% on request

(2) K= ±10%, M = ±20%; J = ±5% not available

(3) M = ±20% (only available tolerance).

(4) Insert lead and packaging code. See Ordering Options Table for available options.

Table 1 – Ratings & Part Number Reference cont.

| VDC | VAC | Capacitance Value (µF) | Size Code | Maximum Dimensions in mm | | | Lead Spacing (p) | dV/dt (V/µs) | Part Number |
|-----|-----|------------------------|-----------|--------------------------|--------|--------|------------------|--------------|--------------------|
| | | | | B | H | L | | | |
| 63 | 40 | 12 | BY | 11 | 19 | 18 | 15.0 | 5 | F611BY126(1)063(4) |
| 63 | 40 | 4.7 | DB | 6 | 14.5 | 26 | 22.5 | 3 | F611DB475(1)063(4) |
| 63 | 40 | 5.6 | DB | 6 | 14.5 | 26 | 22.5 | 3 | F611DB565(1)063(4) |
| 63 | 40 | 6.8 | DI | 7 | 16 | 26 | 22.5 | 3 | F611DI685(1)063(4) |
| 63 | 40 | 8.2 | DI | 7 | 16 | 26 | 22.5 | 3 | F611DI825(1)063(4) |
| 63 | 40 | 10 | DJ | 8.5 | 17 | 26 | 22.5 | 3 | F611DJ106(1)063(4) |
| 63 | 40 | 12 | DM | 9 | 18.5 | 26 | 22.5 | 3 | F611DM126(1)063(4) |
| 63 | 40 | 15 | DO | 10 | 18.5 | 26 | 22.5 | 3 | F611DO156(1)063(4) |
| 63 | 40 | 18 | DP | 11 | 20 | 26 | 22.5 | 3 | F611DP186(1)063(4) |
| 63 | 40 | 22 | DU | 13 | 22 | 26 | 22.5 | 3 | F611DU226(1)063(4) |
| 63 | 40 | 27 | DY | 15.5 | 24.5 | 26 | 22.5 | 3 | F611DY276(1)063(4) |
| 63 | 40 | 33 | DY | 15.5 | 24.5 | 26 | 22.5 | 3 | F611DY336(1)063(4) |
| 63 | 40 | 15 | FB | 9 | 17 | 31.5 | 27.5 | 2 | F611FB156(3)063(4) |
| 63 | 40 | 18 | FC | 11 | 20 | 31.5 | 27.5 | 2 | F611FC186(1)063(4) |
| 63 | 40 | 22 | FC | 11 | 20 | 31.5 | 27.5 | 2 | F611FC226(3)063(4) |
| 63 | 40 | 27 | FI | 13 | 25 | 31.5 | 27.5 | 2 | F611FI276(1)063(4) |
| 63 | 40 | 33 | FI | 13 | 25 | 31.5 | 27.5 | 2 | F611FI336(3)063(4) |
| 63 | 40 | 39 | FN | 14 | 28 | 31.5 | 27.5 | 2 | F611FN396(2)063(4) |
| 63 | 40 | 47 | FR | 17.5 | 28 | 31.5 | 27.5 | 2 | F611FR476(2)063(4) |
| 63 | 40 | 56 | FS | 19 | 29 | 31.5 | 27.5 | 2 | F611FS566(2)063(4) |
| 63 | 40 | 68 | FY | 22 | 37 | 31.5 | 27.5 | 2 | F611FY686(1)063(4) |
| 63 | 40 | 82 | FY | 22 | 37 | 31.5 | 27.5 | 2 | F611FY826(1)063(4) |
| 63 | 40 | 100 | FY | 22 | 37 | 31.5 | 27.5 | 2 | F611FY107(3)063(4) |
| 63 | 40 | 22 | RB | 11 | 22 | 41 | 37.5 | 1 | F611RB226(1)063(4) |
| 63 | 40 | 27 | RB | 11 | 22 | 41 | 37.5 | 1 | F611RB276(2)063(4) |
| 63 | 40 | 33 | RF | 13 | 24 | 41 | 37.5 | 1 | F611RF336(1)063(4) |
| 63 | 40 | 39 | RH | 15 | 26 | 41 | 37.5 | 1 | F611RH396(1)063(4) |
| 63 | 40 | 47 | RH | 15 | 26 | 41 | 37.5 | 1 | F611RH476(2)063(4) |
| 63 | 40 | 56 | RC | 16 | 28.5 | 41 | 37.5 | 1 | F611RC566(2)063(4) |
| 63 | 40 | 68 | RD | 19 | 32 | 41 | 37.5 | 1 | F611RD686(1)063(4) |
| 63 | 40 | 82 | RP | 21 | 38 | 41 | 37.5 | 1 | F611RP826(1)063(4) |
| 63 | 40 | 100 | RP | 21 | 38 | 41 | 37.5 | 1 | F611RP107(2)063(4) |
| 63 | 40 | 120 | RO | 24 | 44 | 41 | 37.5 | 1 | F611RO127(1)063(4) |
| 63 | 40 | 150 | RO | 24 | 44 | 41 | 37.5 | 1 | F611RO157(2)063(4) |
| 63 | 40 | 180 | RU | 30 | 45 | 41 | 37.5 | 1 | F611RU187(2)063(4) |
| 100 | 63 | 0.001 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 200 | F612JF102(1)100(4) |
| 100 | 63 | 0.0012 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 200 | F612JF122(1)100(4) |
| 100 | 63 | 0.0015 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 200 | F612JF152(1)100(4) |
| 100 | 63 | 0.0018 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 200 | F612JF182(1)100(4) |
| 100 | 63 | 0.0022 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 200 | F612JF222(1)100(4) |
| 100 | 63 | 0.0027 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 200 | F612JF272(1)100(4) |
| 100 | 63 | 0.0033 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 200 | F612JF332(1)100(4) |
| 100 | 63 | 0.0039 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 200 | F612JF392(1)100(4) |
| 100 | 63 | 0.0047 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 200 | F612JF472(1)100(4) |
| 100 | 63 | 0.0056 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 200 | F612JF562(1)100(4) |
| 100 | 63 | 0.0068 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 200 | F612JF682(1)100(4) |
| 100 | 63 | 0.0082 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 200 | F612JF822(1)100(4) |
| 100 | 63 | 0.01 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 200 | F612JF103(1)100(4) |
| 100 | 63 | 0.012 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 200 | F612JF123(1)100(4) |
| 100 | 63 | 0.015 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 200 | F612JF153(1)100(4) |
| 100 | 63 | 0.018 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 200 | F612JF183(1)100(4) |
| 100 | 63 | 0.022 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 200 | F612JF223(1)100(4) |
| 100 | 63 | 0.027 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 200 | F612JF273(1)100(4) |
| 100 | 63 | 0.033 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 200 | F612JF333(1)100(4) |
| 100 | 63 | 0.039 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 200 | F612JF393(1)100(4) |
| 100 | 63 | 0.047 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 200 | F612JF473(1)100(4) |
| 100 | 63 | 0.056 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 200 | F612JF563(1)100(4) |
| VDC | VAC | Capacitance Value (µF) | Size Code | B (mm) | H (mm) | L (mm) | Lead Spacing (p) | dV/dt (V/µs) | Part Number |

(1) K= ±10%, M = ±20%; J = ±5% on request

(2) K= ±10%, M = ±20%; J = ±5% not available

(3) M = ±20% (only available tolerance).

(4) Insert lead and packaging code. See Ordering Options Table for available options.

Table 1 – Ratings & Part Number Reference cont.

| VDC | VAC | Capacitance Value (µF) | Size Code | Maximum Dimensions in mm | | | Lead Spacing (p) | dV/dt (V/µs) | Part Number |
|-----|-----|------------------------|-----------|--------------------------|------|------|------------------|--------------|--------------------|
| | | | | B | H | L | | | |
| 100 | 63 | 0.068 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 200 | F612JF683(1)100(4) |
| 100 | 63 | 0.082 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 200 | F612JF823(1)100(4) |
| 100 | 63 | 0.1 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 200 | F612JF104(1)100(4) |
| 100 | 63 | 0.12 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 200 | F612JF124(1)100(4) |
| 100 | 63 | 0.15 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 200 | F612JG154(1)100(4) |
| 100 | 63 | 0.18 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 200 | F612JG184(1)100(4) |
| 100 | 63 | 0.22 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 200 | F612JG224(1)100(4) |
| 100 | 63 | 0.27 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 200 | F612JG274(1)100(4) |
| 100 | 63 | 0.33 | JM | 4.5 | 9.5 | 7.2 | 5.0 | 200 | F612JM334(1)100(4) |
| 100 | 63 | 0.39 | JM | 4.5 | 9.5 | 7.2 | 5.0 | 200 | F612JM394(1)100(4) |
| 100 | 63 | 0.47 | JM | 4.5 | 9.5 | 7.2 | 5.0 | 200 | F612JM474(1)100(4) |
| 100 | 63 | 0.56 | JQ | 5 | 10 | 7.2 | 5.0 | 200 | F612JQ564(1)100(4) |
| 100 | 63 | 0.68 | JQ | 5 | 10 | 7.2 | 5.0 | 200 | F612JQ684(1)100(4) |
| 100 | 63 | 0.82 | JT | 6 | 11 | 7.2 | 5.0 | 200 | F612JT824(1)100(4) |
| 100 | 63 | 1 | JT | 6 | 11 | 7.2 | 5.0 | 200 | F612JT105(1)100(4) |
| 100 | 63 | 0.56 | BB | 4 | 10 | 18 | 15.0 | 8 | F611BB564(1)100(4) |
| 100 | 63 | 0.68 | BB | 4 | 10 | 18 | 15.0 | 8 | F611BB684(1)100(4) |
| 100 | 63 | 0.82 | BB | 4 | 10 | 18 | 15.0 | 8 | F611BB824(1)100(4) |
| 100 | 63 | 1 | BB | 4 | 10 | 18 | 15.0 | 8 | F611BB105(1)100(4) |
| 100 | 63 | 1.2 | BC | 5 | 11 | 18 | 15.0 | 8 | F611BC125(1)100(4) |
| 100 | 63 | 1.5 | BC | 5 | 11 | 18 | 15.0 | 8 | F611BC155(1)100(4) |
| 100 | 63 | 1.8 | BE | 5.5 | 12.5 | 18 | 15.0 | 8 | F611BE185(1)100(4) |
| 100 | 63 | 2.2 | BG | 6 | 12 | 18 | 15.0 | 8 | F611BG225(1)100(4) |
| 100 | 63 | 2.7 | BK | 7.5 | 13.5 | 18 | 15.0 | 8 | F611BK275(1)100(4) |
| 100 | 63 | 3.3 | BK | 7.5 | 13.5 | 18 | 15.0 | 8 | F611BK335(1)100(4) |
| 100 | 63 | 3.9 | BP | 8.5 | 14.5 | 18 | 15.0 | 8 | F611BP395(1)100(4) |
| 100 | 63 | 4.7 | BP | 8.5 | 14.5 | 18 | 15.0 | 8 | F611BP475(1)100(4) |
| 100 | 63 | 5.6 | BS | 10 | 16 | 18 | 15.0 | 8 | F611BS565(1)100(4) |
| 100 | 63 | 6.8 | BY | 11 | 19 | 18 | 15.0 | 8 | F611BY685(1)100(4) |
| 100 | 63 | 8.2 | BY | 11 | 19 | 18 | 15.0 | 8 | F611BY825(1)100(4) |
| 100 | 63 | 2.2 | DB | 6 | 14.5 | 26 | 22.5 | 5 | F611DB225(1)100(4) |
| 100 | 63 | 2.7 | DB | 6 | 14.5 | 26 | 22.5 | 5 | F611DB275(1)100(4) |
| 100 | 63 | 3.3 | DB | 6 | 14.5 | 26 | 22.5 | 5 | F611DB335(1)100(4) |
| 100 | 63 | 3.9 | DB | 6 | 14.5 | 26 | 22.5 | 5 | F611DB395(1)100(4) |
| 100 | 63 | 4.7 | DI | 7 | 16 | 26 | 22.5 | 5 | F611DI475(1)100(4) |
| 100 | 63 | 5.6 | DI | 7 | 16 | 26 | 22.5 | 5 | F611DI565(1)100(4) |
| 100 | 63 | 6.8 | DH | 8 | 16 | 26 | 22.5 | 5 | F611DH685(1)100(4) |
| 100 | 63 | 8.2 | DJ | 8.5 | 17 | 26 | 22.5 | 5 | F611DJ825(1)100(4) |
| 100 | 63 | 10 | DM | 9 | 18.5 | 26 | 22.5 | 5 | F611DM106(1)100(4) |
| 100 | 63 | 12 | DO | 10 | 18.5 | 26 | 22.5 | 5 | F611DO126(1)100(4) |
| 100 | 63 | 15 | DP | 11 | 20 | 26 | 22.5 | 5 | F611DP156(1)100(4) |
| 100 | 63 | 18 | DU | 13 | 22 | 26 | 22.5 | 5 | F611DU186(1)100(4) |
| 100 | 63 | 22 | DY | 15.5 | 24.5 | 26 | 22.5 | 5 | F611DY226(1)100(4) |
| 100 | 63 | 27 | DY | 15.5 | 24.5 | 26 | 22.5 | 5 | F611DY276(1)100(4) |
| 100 | 63 | 10 | FB | 9 | 17 | 31.5 | 27.5 | 3 | F611FB106(1)100(4) |
| 100 | 63 | 12 | FB | 9 | 17 | 31.5 | 27.5 | 3 | F611FB126(2)100(4) |
| 100 | 63 | 15 | FC | 11 | 20 | 31.5 | 27.5 | 3 | F611FC156(1)100(4) |
| 100 | 63 | 18 | FC | 11 | 20 | 31.5 | 27.5 | 3 | F611FC186(2)100(4) |
| 100 | 63 | 22 | FI | 13 | 25 | 31.5 | 27.5 | 3 | F611FI226(1)100(4) |
| 100 | 63 | 27 | FI | 13 | 25 | 31.5 | 27.5 | 3 | F611FI276(2)100(4) |
| 100 | 63 | 33 | FN | 14 | 28 | 31.5 | 27.5 | 3 | F611FN336(2)100(4) |
| 100 | 63 | 39 | FR | 17.5 | 28 | 31.5 | 27.5 | 3 | F611FR396(2)100(4) |
| 100 | 63 | 47 | FS | 19 | 29 | 31.5 | 27.5 | 3 | F611FS476(2)100(4) |
| 100 | 63 | 56 | FY | 22 | 37 | 31.5 | 27.5 | 3 | F611FY566(1)100(4) |
| 100 | 63 | 68 | FY | 22 | 37 | 31.5 | 27.5 | 3 | F611FY686(1)100(4) |
| 100 | 63 | 82 | FY | 22 | 37 | 31.5 | 27.5 | 3 | F611FY826(3)100(4) |
| 100 | 63 | 22 | RB | 11 | 22 | 41 | 37.5 | 2 | F611RB226(1)100(4) |

(1) K= ±10%, M = ±20%; J = ±5% on request

(2) K= ±10%, M = ±20%; J = ±5% not available

(3) M = ±20% (only available tolerance).

(4) Insert lead and packaging code. See Ordering Options Table for available options.

Table 1 – Ratings & Part Number Reference cont.

| VDC | VAC | Capacitance Value (µF) | Size Code | Maximum Dimensions in mm | | | Lead Spacing (p) | dV/dt (V/µs) | Part Number |
|-----|-----|------------------------|-----------|--------------------------|--------|--------|------------------|--------------|--------------------|
| | | | | B | H | L | | | |
| 100 | 63 | 27 | RB | 11 | 22 | 41 | 37.5 | 2 | F611RB276(2)100(4) |
| 100 | 63 | 33 | RF | 13 | 24 | 41 | 37.5 | 2 | F611RF336(1)100(4) |
| 100 | 63 | 39 | RH | 15 | 26 | 41 | 37.5 | 2 | F611RH396(1)100(4) |
| 100 | 63 | 47 | RH | 15 | 26 | 41 | 37.5 | 2 | F611RH476(2)100(4) |
| 100 | 63 | 56 | RC | 16 | 28.5 | 41 | 37.5 | 2 | F611RC566(2)100(4) |
| 100 | 63 | 68 | RD | 19 | 32 | 41 | 37.5 | 2 | F611RD686(1)100(4) |
| 100 | 63 | 82 | RP | 21 | 38 | 41 | 37.5 | 2 | F611RP826(1)100(4) |
| 100 | 63 | 100 | RP | 21 | 38 | 41 | 37.5 | 2 | F611RP107(2)100(4) |
| 100 | 63 | 120 | RO | 24 | 44 | 41 | 37.5 | 2 | F611RO127(1)100(4) |
| 100 | 63 | 150 | RO | 24 | 44 | 41 | 37.5 | 2 | F611RO157(2)100(4) |
| 100 | 63 | 180 | RU | 30 | 45 | 41 | 37.5 | 2 | F611RU187(2)100(4) |
| 160 | 90 | 0.33 | BB | 4 | 10 | 18 | 15.0 | 10 | F611BB334(1)160(4) |
| 160 | 90 | 0.39 | BB | 4 | 10 | 18 | 15.0 | 10 | F611BB394(1)160(4) |
| 160 | 90 | 0.47 | BC | 5 | 11 | 18 | 15.0 | 10 | F611BC474(1)160(4) |
| 160 | 90 | 0.56 | BC | 5 | 11 | 18 | 15.0 | 10 | F611BC564(1)160(4) |
| 160 | 90 | 0.68 | BC | 5 | 11 | 18 | 15.0 | 10 | F611BC684(1)160(4) |
| 160 | 90 | 0.82 | BE | 5.5 | 12.5 | 18 | 15.0 | 10 | F611BE824(1)160(4) |
| 160 | 90 | 1 | BG | 6 | 12 | 18 | 15.0 | 10 | F611BG105(1)160(4) |
| 160 | 90 | 1.2 | BK | 7.5 | 13.5 | 18 | 15.0 | 10 | F611BK125(1)160(4) |
| 160 | 90 | 1.5 | BK | 7.5 | 13.5 | 18 | 15.0 | 10 | F611BK155(1)160(4) |
| 160 | 90 | 1.8 | BP | 8.5 | 14.5 | 18 | 15.0 | 10 | F611BP185(1)160(4) |
| 160 | 90 | 2.2 | BS | 10 | 16 | 18 | 15.0 | 10 | F611BS225(1)160(4) |
| 160 | 90 | 2.7 | BY | 11 | 19 | 18 | 15.0 | 10 | F611BY275(1)160(4) |
| 160 | 90 | 3.3 | BY | 11 | 19 | 18 | 15.0 | 10 | F611BY335(1)160(4) |
| 160 | 90 | 3.9 | BY | 11 | 19 | 18 | 15.0 | 10 | F611BY395(1)160(4) |
| 160 | 90 | 1.2 | DB | 6 | 14.5 | 26 | 22.5 | 6 | F611DB125(1)160(4) |
| 160 | 90 | 1.5 | DB | 6 | 14.5 | 26 | 22.5 | 6 | F611DB155(1)160(4) |
| 160 | 90 | 1.8 | DB | 6 | 14.5 | 26 | 22.5 | 6 | F611DB185(1)160(4) |
| 160 | 90 | 2.2 | DI | 7 | 16 | 26 | 22.5 | 6 | F611DI225(1)160(4) |
| 160 | 90 | 2.7 | DI | 7 | 16 | 26 | 22.5 | 6 | F611DI275(1)160(4) |
| 160 | 90 | 3.3 | DJ | 8.5 | 17 | 26 | 22.5 | 6 | F611DJ335(1)160(4) |
| 160 | 90 | 3.9 | DM | 9 | 18.5 | 26 | 22.5 | 6 | F611DM395(1)160(4) |
| 160 | 90 | 4.7 | DO | 10 | 18.5 | 26 | 22.5 | 6 | F611DO475(1)160(4) |
| 160 | 90 | 5.6 | DP | 11 | 20 | 26 | 22.5 | 6 | F611DP565(1)160(4) |
| 160 | 90 | 6.8 | DU | 13 | 22 | 26 | 22.5 | 6 | F611DU685(1)160(4) |
| 160 | 90 | 8.2 | DU | 13 | 22 | 26 | 22.5 | 6 | F611DU825(1)160(4) |
| 160 | 90 | 10 | DY | 15.5 | 24.5 | 26 | 22.5 | 6 | F611DY106(1)160(4) |
| 160 | 90 | 12 | DY | 15.5 | 24.5 | 26 | 22.5 | 6 | F611DY126(1)160(4) |
| 160 | 90 | 5.6 | FB | 9 | 17 | 31.5 | 27.5 | 4 | F611FB565(1)160(4) |
| 160 | 90 | 6.8 | FB | 9 | 17 | 31.5 | 27.5 | 4 | F611FB685(1)160(4) |
| 160 | 90 | 8.2 | FB | 9 | 17 | 31.5 | 27.5 | 4 | F611FB825(3)160(4) |
| 160 | 90 | 10 | FC | 11 | 20 | 31.5 | 27.5 | 4 | F611FC106(1)160(4) |
| 160 | 90 | 12 | FC | 11 | 20 | 31.5 | 27.5 | 4 | F611FC126(3)160(4) |
| 160 | 90 | 15 | FI | 13 | 25 | 31.5 | 27.5 | 4 | F611FI156(1)160(4) |
| 160 | 90 | 18 | FI | 13 | 25 | 31.5 | 27.5 | 4 | F611FI186(2)160(4) |
| 160 | 90 | 22 | FN | 14 | 28 | 31.5 | 27.5 | 4 | F611FN226(2)160(4) |
| 160 | 90 | 27 | FR | 17.5 | 28 | 31.5 | 27.5 | 4 | F611FR276(2)160(4) |
| 160 | 90 | 33 | FS | 19 | 29 | 31.5 | 27.5 | 4 | F611FS336(2)160(4) |
| 160 | 90 | 39 | FY | 22 | 37 | 31.5 | 27.5 | 4 | F611FY396(1)160(4) |
| 160 | 90 | 47 | FY | 22 | 37 | 31.5 | 27.5 | 4 | F611FY476(2)160(4) |
| 160 | 90 | 56 | FY | 22 | 37 | 31.5 | 27.5 | 4 | F611FY566(3)160(4) |
| 160 | 90 | 15 | RB | 11 | 22 | 41 | 37.5 | 3 | F611RB156(1)160(4) |
| 160 | 90 | 18 | RB | 11 | 22 | 41 | 37.5 | 3 | F611RB186(3)160(4) |
| 160 | 90 | 22 | RF | 13 | 24 | 41 | 37.5 | 3 | F611RF226(2)160(4) |
| 160 | 90 | 27 | RH | 15 | 26 | 41 | 37.5 | 3 | F611RH276(1)160(4) |
| 160 | 90 | 33 | RH | 15 | 26 | 41 | 37.5 | 3 | F611RH336(3)160(4) |
| 160 | 90 | 39 | RC | 16 | 28.5 | 41 | 37.5 | 3 | F611RC396(3)160(4) |
| VDC | VAC | Capacitance Value (µF) | Size Code | B (mm) | H (mm) | L (mm) | Lead Spacing (p) | dV/dt (V/µs) | Part Number |

(1) K= ±10%, M = ±20%; J = ±5% on request

(2) K= ±10%, M = ±20%; J = ±5% not available

(3) M = ±20% (only available tolerance).

(4) Insert lead and packaging code. See Ordering Options Table for available options.

Table 1 – Ratings & Part Number Reference cont.

| VDC | VAC | Capacitance Value (µF) | Size Code | Maximum Dimensions in mm | | | Lead Spacing (p) | dV/dt (V/µs) | Part Number |
|-----|-----|------------------------|-----------|--------------------------|--------|--------|------------------|--------------|--------------------|
| | | | | B | H | L | | | |
| 160 | 90 | 47 | RD | 19 | 32 | 41 | 37.5 | 3 | F611RD476(2)160(4) |
| 160 | 90 | 56 | RP | 21 | 38 | 41 | 37.5 | 3 | F611RP566(1)160(4) |
| 160 | 90 | 68 | RP | 21 | 38 | 41 | 37.5 | 3 | F611RP686(1)160(4) |
| 160 | 90 | 82 | RO | 24 | 44 | 41 | 37.5 | 3 | F611RO826(1)160(4) |
| 160 | 90 | 100 | RO | 24 | 44 | 41 | 37.5 | 3 | F611RO107(3)160(4) |
| 160 | 90 | 120 | RU | 30 | 45 | 41 | 37.5 | 3 | F611RU127(3)160(4) |
| 250 | 160 | 0.0068 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 250 | F612JF682(1)250(4) |
| 250 | 160 | 0.0082 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 250 | F612JF822(1)250(4) |
| 250 | 160 | 0.01 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 250 | F612JF103(1)250(4) |
| 250 | 160 | 0.012 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 250 | F612JF123(1)250(4) |
| 250 | 160 | 0.015 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 250 | F612JF153(1)250(4) |
| 250 | 160 | 0.018 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 250 | F612JF183(1)250(4) |
| 250 | 160 | 0.022 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 250 | F612JG223(1)250(4) |
| 250 | 160 | 0.027 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 250 | F612JG273(1)250(4) |
| 250 | 160 | 0.033 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 250 | F612JG333(1)250(4) |
| 250 | 160 | 0.039 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 250 | F612JG393(1)250(4) |
| 250 | 160 | 0.047 | JM | 4.5 | 9.5 | 7.2 | 5.0 | 250 | F612JM473(1)250(4) |
| 250 | 160 | 0.056 | JM | 4.5 | 9.5 | 7.2 | 5.0 | 250 | F612JM563(1)250(4) |
| 250 | 160 | 0.068 | JM | 4.5 | 9.5 | 7.2 | 5.0 | 250 | F612JM683(1)250(4) |
| 250 | 160 | 0.082 | JQ | 5 | 10 | 7.2 | 5.0 | 250 | F612JQ823(1)250(4) |
| 250 | 160 | 0.1 | JQ | 5 | 10 | 7.2 | 5.0 | 250 | F612JQ104(1)250(4) |
| 250 | 160 | 0.12 | JT | 6 | 11 | 7.2 | 5.0 | 250 | F612JT124(1)250(4) |
| 250 | 160 | 0.15 | JT | 6 | 11 | 7.2 | 5.0 | 250 | F612JT154(1)250(4) |
| 250 | 140 | 0.022 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 130 | F612JF223(1)250(4) |
| 250 | 140 | 0.027 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 130 | F612JF273(1)250(4) |
| 250 | 140 | 0.047 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 130 | F612JG473(1)250(4) |
| 250 | 140 | 0.056 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 130 | F612JG563(1)250(4) |
| 250 | 140 | 0.068 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 130 | F612JG683(1)250(4) |
| 250 | 140 | 0.082 | JM | 4.5 | 9.5 | 7.2 | 5.0 | 130 | F612JM823(1)250(4) |
| 250 | 140 | 0.1 | JM | 4.5 | 9.5 | 7.2 | 5.0 | 130 | F612JM104(1)250(4) |
| 250 | 140 | 0.12 | JM | 4.5 | 9.5 | 7.2 | 5.0 | 130 | F612JM124(1)250(4) |
| 250 | 140 | 0.15 | JQ | 5 | 10 | 7.2 | 5.0 | 130 | F612JQ154(1)250(4) |
| 250 | 140 | 0.18 | JT | 6 | 11 | 7.2 | 5.0 | 130 | F612JT184(1)250(4) |
| 250 | 140 | 0.22 | JT | 6 | 11 | 7.2 | 5.0 | 130 | F612JT224(1)250(4) |
| 250 | 160 | 0.1 | AG | 4 | 9 | 13 | 10.0 | 20 | F611AG104(1)250(4) |
| 250 | 160 | 0.12 | AG | 4 | 9 | 13 | 10.0 | 20 | F611AG124(1)250(4) |
| 250 | 160 | 0.15 | AG | 4 | 9 | 13 | 10.0 | 20 | F611AG154(1)250(4) |
| 250 | 160 | 0.18 | AK | 5 | 11 | 13 | 10.0 | 20 | F611AK184(1)250(4) |
| 250 | 160 | 0.22 | AK | 5 | 11 | 13 | 10.0 | 20 | F611AK224(1)250(4) |
| 250 | 160 | 0.27 | AK | 5 | 11 | 13 | 10.0 | 20 | F611AK274(1)250(4) |
| 250 | 160 | 0.33 | AP | 6 | 12 | 13 | 10.0 | 20 | F611AP334(1)250(4) |
| 250 | 160 | 0.39 | AP | 6 | 12 | 13 | 10.0 | 20 | F611AP394(1)250(4) |
| 250 | 160 | 0.47 | AP | 6 | 12 | 13 | 10.0 | 20 | F611AP474(1)250(4) |
| 250 | 160 | 0.18 | BB | 4 | 10 | 18 | 15.0 | 12 | F611BB184(1)250(4) |
| 250 | 160 | 0.22 | BB | 4 | 10 | 18 | 15.0 | 12 | F611BB224(1)250(4) |
| 250 | 160 | 0.27 | BB | 4 | 10 | 18 | 15.0 | 12 | F611BB274(1)250(4) |
| 250 | 160 | 0.33 | BC | 5 | 11 | 18 | 15.0 | 12 | F611BC334(1)250(4) |
| 250 | 160 | 0.39 | BC | 5 | 11 | 18 | 15.0 | 12 | F611BC394(1)250(4) |
| 250 | 160 | 0.47 | BE | 5.5 | 12.5 | 18 | 15.0 | 12 | F611BE474(1)250(4) |
| 250 | 160 | 0.56 | BG | 6 | 12 | 18 | 15.0 | 12 | F611BG564(1)250(4) |
| 250 | 160 | 0.68 | BK | 7.5 | 13.5 | 18 | 15.0 | 12 | F611BK684(1)250(4) |
| 250 | 160 | 0.82 | BK | 7.5 | 13.5 | 18 | 15.0 | 12 | F611BK824(1)250(4) |
| 250 | 160 | 1 | BK | 7.5 | 13.5 | 18 | 15.0 | 12 | F611BK105(1)250(4) |
| 250 | 160 | 1.2 | BP | 8.5 | 14.5 | 18 | 15.0 | 12 | F611BP125(1)250(4) |
| 250 | 160 | 1.5 | BS | 10 | 16 | 18 | 15.0 | 12 | F611BS155(1)250(4) |
| 250 | 160 | 1.8 | BY | 11 | 19 | 18 | 15.0 | 12 | F611BY185(1)250(4) |
| 250 | 160 | 2.2 | BY | 11 | 19 | 18 | 15.0 | 12 | F611BY225(1)250(4) |
| VDC | VAC | Capacitance Value (µF) | Size Code | B (mm) | H (mm) | L (mm) | Lead Spacing (p) | dV/dt (V/µs) | Part Number |

(1) K= ±10%, M = ±20%; J = ±5% on request

(2) K= ±10%, M = ±20%; J = ±5% not available

(3) M = ±20% (only available tolerance).

(4) Insert lead and packaging code. See Ordering Options Table for available options.

Table 1 – Ratings & Part Number Reference cont.

| VDC | VAC | Capacitance Value (µF) | Size Code | Maximum Dimensions in mm | | | Lead Spacing (p) | dV/dt (V/µs) | Part Number |
|-----|-----|------------------------|-----------|--------------------------|--------|--------|------------------|--------------|--------------------|
| | | | | B | H | L | | | |
| 250 | 160 | 0.82 | DB | 6 | 14.5 | 26 | 22.5 | 8 | F611DB824(1)250(4) |
| 250 | 160 | 1 | DB | 6 | 14.5 | 26 | 22.5 | 8 | F611DB105(1)250(4) |
| 250 | 160 | 1.2 | DI | 7 | 16 | 26 | 22.5 | 8 | F611DI125(1)250(4) |
| 250 | 160 | 1.5 | DI | 7 | 16 | 26 | 22.5 | 8 | F611DI155(1)250(4) |
| 250 | 160 | 1.8 | DH | 8 | 16 | 26 | 22.5 | 8 | F611DH185(1)250(4) |
| 250 | 160 | 2.2 | DJ | 8.5 | 17 | 26 | 22.5 | 8 | F611DJ225(1)250(4) |
| 250 | 160 | 2.7 | DO | 10 | 18.5 | 26 | 22.5 | 8 | F611DO275(1)250(4) |
| 250 | 160 | 3.3 | DP | 11 | 20 | 26 | 22.5 | 8 | F611DP335(1)250(4) |
| 250 | 160 | 3.9 | DU | 13 | 22 | 26 | 22.5 | 8 | F611DU395(1)250(4) |
| 250 | 160 | 4.7 | DU | 13 | 22 | 26 | 22.5 | 8 | F611DU475(1)250(4) |
| 250 | 160 | 5.6 | DY | 15.5 | 24.5 | 26 | 22.5 | 8 | F611DY565(1)250(4) |
| 250 | 160 | 2.2 | FB | 9 | 17 | 31.5 | 27.5 | 5 | F611FB225(1)250(4) |
| 250 | 160 | 2.7 | FB | 9 | 17 | 31.5 | 27.5 | 5 | F611FB275(1)250(4) |
| 250 | 160 | 3.3 | FB | 9 | 17 | 31.5 | 27.5 | 5 | F611FB335(1)250(4) |
| 250 | 160 | 3.9 | FB | 9 | 17 | 31.5 | 27.5 | 5 | F611FB395(1)250(4) |
| 250 | 160 | 4.7 | FB | 9 | 17 | 31.5 | 27.5 | 5 | F611FB475(1)250(4) |
| 250 | 160 | 5.6 | FC | 11 | 20 | 31.5 | 27.5 | 5 | F611FC565(1)250(4) |
| 250 | 160 | 6.8 | FC | 11 | 20 | 31.5 | 27.5 | 5 | F611FC685(1)250(4) |
| 250 | 160 | 8.2 | FI | 13 | 25 | 31.5 | 27.5 | 5 | F611FI825(1)250(4) |
| 250 | 160 | 10 | FI | 13 | 25 | 31.5 | 27.5 | 5 | F611FI106(1)250(4) |
| 250 | 160 | 12 | FI | 13 | 25 | 31.5 | 27.5 | 5 | F611FI126(2)250(4) |
| 250 | 160 | 15 | FN | 14 | 28 | 31.5 | 27.5 | 5 | F611FN156(2)250(4) |
| 250 | 160 | 18 | FR | 17.5 | 28 | 31.5 | 27.5 | 5 | F611FR186(1)250(4) |
| 250 | 160 | 22 | FS | 19 | 29 | 31.5 | 27.5 | 5 | F611FS226(2)250(4) |
| 250 | 160 | 27 | FY | 22 | 37 | 31.5 | 27.5 | 5 | F611FY276(1)250(4) |
| 250 | 160 | 33 | FY | 22 | 37 | 31.5 | 27.5 | 5 | F611FY336(2)250(4) |
| 250 | 160 | 5.6 | RB | 11 | 22 | 41 | 37.5 | 4 | F611RB565(1)250(4) |
| 250 | 160 | 6.8 | RB | 11 | 22 | 41 | 37.5 | 4 | F611RB685(1)250(4) |
| 250 | 160 | 8.2 | RB | 11 | 22 | 41 | 37.5 | 4 | F611RB825(1)250(4) |
| 250 | 160 | 10 | RB | 11 | 22 | 41 | 37.5 | 4 | F611RB106(1)250(4) |
| 250 | 160 | 12 | RB | 11 | 22 | 41 | 37.5 | 4 | F611RB126(2)250(4) |
| 250 | 160 | 15 | RF | 13 | 24 | 41 | 37.5 | 4 | F611RF156(1)250(4) |
| 250 | 160 | 18 | RH | 15 | 26 | 41 | 37.5 | 4 | F611RH186(1)250(4) |
| 250 | 160 | 22 | RH | 15 | 26 | 41 | 37.5 | 4 | F611RH226(2)250(4) |
| 250 | 160 | 27 | RC | 16 | 28.5 | 41 | 37.5 | 4 | F611RC276(3)250(4) |
| 250 | 160 | 33 | RD | 19 | 32 | 41 | 37.5 | 4 | F611RD336(2)250(4) |
| 250 | 160 | 39 | RP | 21 | 38 | 41 | 37.5 | 4 | F611RP396(1)250(4) |
| 250 | 160 | 47 | RP | 21 | 38 | 41 | 37.5 | 4 | F611RP476(2)250(4) |
| 250 | 160 | 56 | RO | 24 | 44 | 41 | 37.5 | 4 | F611RO566(1)250(4) |
| 250 | 160 | 68 | RO | 24 | 44 | 41 | 37.5 | 4 | F611RO686(3)250(4) |
| 250 | 160 | 82 | RU | 30 | 45 | 41 | 37.5 | 4 | F611RU826(2)250(4) |
| 400 | 200 | 0.001 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 400 | F612JF102(1)400(4) |
| 400 | 200 | 0.0012 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 400 | F612JF122(1)400(4) |
| 400 | 200 | 0.0015 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 400 | F612JF152(1)400(4) |
| 400 | 200 | 0.0018 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 400 | F612JF182(1)400(4) |
| 400 | 200 | 0.0022 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 400 | F612JF222(1)400(4) |
| 400 | 200 | 0.0027 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 400 | F612JF272(1)400(4) |
| 400 | 200 | 0.0033 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 400 | F612JF332(1)400(4) |
| 400 | 200 | 0.0039 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 400 | F612JF392(1)400(4) |
| 400 | 200 | 0.0047 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 400 | F612JF472(1)400(4) |
| 400 | 200 | 0.0056 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 400 | F612JG562(1)400(4) |
| 400 | 200 | 0.0068 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 400 | F612JG682(1)400(4) |
| 400 | 200 | 0.082 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 400 | F612JG823(1)400(4) |
| 400 | 200 | 0.01 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 400 | F612JG103(1)400(4) |
| 400 | 200 | 0.012 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 400 | F612JG123(1)400(4) |
| 400 | 200 | 0.015 | JM | 4.5 | 9.5 | 7.2 | 5.0 | 400 | F612JM153(1)400(4) |
| 400 | 200 | 0.018 | JM | 4.5 | 9.5 | 7.2 | 5.0 | 400 | F612JM183(1)400(4) |
| VDC | VAC | Capacitance Value (µF) | Size Code | B (mm) | H (mm) | L (mm) | Lead Spacing (p) | dV/dt (V/µs) | Part Number |

(1) K= ±10%, M = ±20%; J = ±5% on request

(2) K= ±10%, M = ±20%; J = ±5% not available

(3) M = ±20% (only available tolerance).

(4) Insert lead and packaging code. See Ordering Options Table for available options.

Table 1 – Ratings & Part Number Reference cont.

| VDC | VAC | Capacitance Value (µF) | Size Code | Maximum Dimensions in mm | | | Lead Spacing (p) | dV/dt (V/µs) | Part Number |
|-----|-----|------------------------|-----------|--------------------------|--------|--------|------------------|--------------|--------------------|
| | | | | B | H | L | | | |
| 400 | 200 | 0.022 | JM | 4.5 | 9.5 | 7.2 | 5.0 | 400 | F612JM223(1)400(4) |
| 400 | 200 | 0.027 | JQ | 5 | 10 | 7.2 | 5.0 | 400 | F612JQ273(1)400(4) |
| 400 | 200 | 0.033 | JQ | 5 | 10 | 7.2 | 5.0 | 400 | F612JQ333(1)400(4) |
| 400 | 200 | 0.039 | JT | 6 | 11 | 7.2 | 5.0 | 400 | F612JT393(1)400(4) |
| 400 | 200 | 0.047 | JT | 6 | 11 | 7.2 | 5.0 | 400 | F612JT473(1)400(4) |
| 400 | 200 | 0.056 | JT | 6 | 11 | 7.2 | 5.0 | 400 | F612JT563(1)400(4) |
| 400 | 160 | 0.0068 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 200 | F612JF682(1)400(4) |
| 400 | 160 | 0.0082 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 200 | F612JF822(1)400(4) |
| 400 | 160 | 0.015 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 200 | F612JG153(1)400(4) |
| 400 | 160 | 0.018 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 200 | F612JG183(1)400(4) |
| 400 | 160 | 0.033 | JM | 4.5 | 9.5 | 7.2 | 5.0 | 200 | F612JM333(1)400(4) |
| 400 | 160 | 0.039 | JM | 4.5 | 9.5 | 7.2 | 5.0 | 200 | F612JM393(1)400(4) |
| 400 | 160 | 0.047 | JQ | 5 | 10 | 7.2 | 5.0 | 200 | F612JQ473(1)400(4) |
| 400 | 160 | 0.068 | JT | 6 | 11 | 7.2 | 5.0 | 200 | F612JT683(1)400(4) |
| 400 | 200 | 0.033 | AG | 4 | 9 | 13 | 10.0 | 30 | F611AG333(1)400(4) |
| 400 | 200 | 0.039 | AG | 4 | 9 | 13 | 10.0 | 30 | F611AG393(1)400(4) |
| 400 | 200 | 0.047 | AG | 4 | 9 | 13 | 10.0 | 30 | F611AG473(1)400(4) |
| 400 | 200 | 0.056 | AG | 4 | 9 | 13 | 10.0 | 30 | F611AG563(1)400(4) |
| 400 | 200 | 0.068 | AG | 4 | 9 | 13 | 10.0 | 30 | F611AG683(1)400(4) |
| 400 | 200 | 0.082 | AG | 4 | 9 | 13 | 10.0 | 30 | F611AG823(1)400(4) |
| 400 | 200 | 0.1 | AK | 5 | 11 | 13 | 10.0 | 30 | F611AK104(1)400(4) |
| 400 | 200 | 0.12 | AK | 5 | 11 | 13 | 10.0 | 30 | F611AK124(1)400(4) |
| 400 | 200 | 0.15 | AK | 5 | 11 | 13 | 10.0 | 30 | F611AK154(1)400(4) |
| 400 | 200 | 0.18 | AP | 6 | 12 | 13 | 10.0 | 30 | F611AP184(1)400(4) |
| 400 | 200 | 0.22 | AP | 6 | 12 | 13 | 10.0 | 30 | F611AP224(1)400(4) |
| 400 | 200 | 0.056 | BB | 4 | 10 | 18 | 15.0 | 20 | F611BB563(1)400(4) |
| 400 | 200 | 0.068 | BB | 4 | 10 | 18 | 15.0 | 20 | F611BB683(1)400(4) |
| 400 | 200 | 0.082 | BB | 4 | 10 | 18 | 15.0 | 20 | F611BB823(1)400(4) |
| 400 | 200 | 0.1 | BB | 4 | 10 | 18 | 15.0 | 20 | F611BB104(1)400(4) |
| 400 | 200 | 0.12 | BB | 4 | 10 | 18 | 15.0 | 20 | F611BB124(1)400(4) |
| 400 | 200 | 0.15 | BB | 4 | 10 | 18 | 15.0 | 20 | F611BB154(1)400(4) |
| 400 | 200 | 0.18 | BC | 5 | 11 | 18 | 15.0 | 20 | F611BC184(1)400(4) |
| 400 | 200 | 0.22 | BC | 5 | 11 | 18 | 15.0 | 20 | F611BC224(1)400(4) |
| 400 | 200 | 0.27 | BE | 5.5 | 12.5 | 18 | 15.0 | 20 | F611BE274(1)400(4) |
| 400 | 200 | 0.33 | BG | 6 | 12 | 18 | 15.0 | 20 | F611BG334(1)400(4) |
| 400 | 200 | 0.39 | BK | 7.5 | 13.5 | 18 | 15.0 | 20 | F611BK394(1)400(4) |
| 400 | 200 | 0.47 | BK | 7.5 | 13.5 | 18 | 15.0 | 20 | F611BK474(1)400(4) |
| 400 | 200 | 0.56 | BK | 7.5 | 13.5 | 18 | 15.0 | 20 | F611BK564(1)400(4) |
| 400 | 200 | 0.68 | BP | 8.5 | 14.5 | 18 | 15.0 | 20 | F611BP684(1)400(4) |
| 400 | 200 | 0.82 | BS | 10 | 16 | 18 | 15.0 | 20 | F611BS824(1)400(4) |
| 400 | 200 | 1 | BY | 11 | 19 | 18 | 15.0 | 20 | F611BY105(1)400(4) |
| 400 | 200 | 1.2 | BY | 11 | 19 | 18 | 15.0 | 20 | F611BY125(1)400(4) |
| 400 | 200 | 1.5 | BY | 11 | 19 | 18 | 15.0 | 20 | F611BY155(1)400(4) |
| 400 | 200 | 0.27 | DB | 6 | 14.5 | 26 | 22.5 | 10 | F611DB274(1)400(4) |
| 400 | 200 | 0.33 | DB | 6 | 14.5 | 26 | 22.5 | 10 | F611DB334(1)400(4) |
| 400 | 200 | 0.39 | DB | 6 | 14.5 | 26 | 22.5 | 10 | F611DB394(1)400(4) |
| 400 | 200 | 0.47 | DB | 6 | 14.5 | 26 | 22.5 | 10 | F611DB474(1)400(4) |
| 400 | 200 | 0.56 | DB | 6 | 14.5 | 26 | 22.5 | 10 | F611DB564(1)400(4) |
| 400 | 200 | 0.68 | DB | 6 | 14.5 | 26 | 22.5 | 10 | F611DB684(1)400(4) |
| 400 | 200 | 0.82 | DI | 7 | 16 | 26 | 22.5 | 10 | F611DI824(1)400(4) |
| 400 | 200 | 1 | DI | 7 | 16 | 26 | 22.5 | 10 | F611DI105(1)400(4) |
| 400 | 200 | 1.2 | DJ | 8.5 | 17 | 26 | 22.5 | 10 | F611DJ125(1)400(4) |
| 400 | 200 | 1.5 | DM | 9 | 18.5 | 26 | 22.5 | 10 | F611DM155(1)400(4) |
| 400 | 200 | 1.8 | DO | 10 | 18.5 | 26 | 22.5 | 10 | F611DO185(1)400(4) |
| 400 | 200 | 2.2 | DP | 11 | 20 | 26 | 22.5 | 10 | F611DP225(1)400(4) |
| 400 | 200 | 2.7 | DU | 13 | 22 | 26 | 22.5 | 10 | F611DU275(1)400(4) |
| 400 | 200 | 3.3 | DU | 13 | 22 | 26 | 22.5 | 10 | F611DU335(1)400(4) |
| VDC | VAC | Capacitance Value (µF) | Size Code | B (mm) | H (mm) | L (mm) | Lead Spacing (p) | dV/dt (V/µs) | Part Number |

(1) K= ±10%, M = ±20%; J = ±5% on request

(2) K= ±10%, M = ±20%; J = ±5% not available

(3) M = ±20% (only available tolerance).

(4) Insert lead and packaging code. See Ordering Options Table for available options.

Table 1 – Ratings & Part Number Reference cont.

| VDC | VAC | Capacitance Value (µF) | Size Code | Maximum Dimensions in mm | | | Lead Spacing (p) | dV/dt (V/µs) | Part Number |
|-----|-----|------------------------|-----------|--------------------------|--------|--------|------------------|--------------|--------------------|
| | | | | B | H | L | | | |
| 400 | 200 | 3.9 | DY | 15.5 | 24.5 | 26 | 22.5 | 10 | F611DY395(1)400(4) |
| 400 | 200 | 4.7 | DY | 15.5 | 24.5 | 26 | 22.5 | 10 | F611DY475(1)400(4) |
| 400 | 200 | 0.82 | FB | 9 | 17 | 31.5 | 27.5 | 8.5 | F611FB824(1)400(4) |
| 400 | 200 | 1 | FB | 9 | 17 | 31.5 | 27.5 | 8.5 | F611FB105(1)400(4) |
| 400 | 200 | 1.2 | FB | 9 | 17 | 31.5 | 27.5 | 8.5 | F611FB125(1)400(4) |
| 400 | 200 | 1.5 | FB | 9 | 17 | 31.5 | 27.5 | 8.5 | F611FB155(1)400(4) |
| 400 | 200 | 1.8 | FB | 9 | 17 | 31.5 | 27.5 | 8.5 | F611FB185(1)400(4) |
| 400 | 200 | 2.2 | FC | 11 | 20 | 31.5 | 27.5 | 8.5 | F611FC225(1)400(4) |
| 400 | 200 | 2.7 | FC | 11 | 20 | 31.5 | 27.5 | 8.5 | F611FC275(1)400(4) |
| 400 | 200 | 3.3 | FI | 13 | 25 | 31.5 | 27.5 | 8.5 | F611FI335(1)400(4) |
| 400 | 200 | 3.9 | FI | 13 | 25 | 31.5 | 27.5 | 8.5 | F611FI395(1)400(4) |
| 400 | 200 | 4.7 | FI | 13 | 25 | 31.5 | 27.5 | 8.5 | F611FI475(2)400(4) |
| 400 | 200 | 5.6 | FN | 14 | 28 | 31.5 | 27.5 | 8.5 | F611FN565(2)400(4) |
| 400 | 200 | 6.8 | FR | 17.5 | 28 | 31.5 | 27.5 | 8.5 | F611FR685(2)400(4) |
| 400 | 200 | 8.2 | FR | 17.5 | 28 | 31.5 | 27.5 | 8.5 | F611FR825(3)400(4) |
| 400 | 200 | 10 | FY | 22 | 37 | 31.5 | 27.5 | 8.5 | F611FY106(2)400(4) |
| 400 | 200 | 12 | FY | 22 | 37 | 31.5 | 27.5 | 8.5 | F611FY126(2)400(4) |
| 400 | 200 | 15 | FY | 22 | 37 | 31.5 | 27.5 | 8.5 | F611FY156(3)400(4) |
| 400 | 200 | 2.2 | RB | 11 | 22 | 41 | 37.5 | 6 | F611RB225(1)400(4) |
| 400 | 200 | 2.7 | RB | 11 | 22 | 41 | 37.5 | 6 | F611RB275(1)400(4) |
| 400 | 200 | 3.3 | RB | 11 | 22 | 41 | 37.5 | 6 | F611RB335(1)400(4) |
| 400 | 200 | 3.9 | RB | 11 | 22 | 41 | 37.5 | 6 | F611RB395(1)400(4) |
| 400 | 200 | 4.7 | RB | 11 | 22 | 41 | 37.5 | 6 | F611RB475(2)400(4) |
| 400 | 200 | 5.6 | RF | 13 | 24 | 41 | 37.5 | 6 | F611RF565(1)400(4) |
| 400 | 200 | 6.8 | RF | 13 | 24 | 41 | 37.5 | 6 | F611RF685(3)400(4) |
| 400 | 200 | 8.2 | RH | 15 | 26 | 41 | 37.5 | 6 | F611RH825(2)400(4) |
| 400 | 200 | 10 | RC | 16 | 28.5 | 41 | 37.5 | 6 | F611RC106(2)400(4) |
| 400 | 200 | 12 | RD | 19 | 32 | 41 | 37.5 | 6 | F611RD126(2)400(4) |
| 400 | 200 | 15 | RP | 21 | 38 | 41 | 37.5 | 6 | F611RP156(1)400(4) |
| 400 | 200 | 18 | RP | 21 | 38 | 41 | 37.5 | 6 | F611RP186(2)400(4) |
| 400 | 200 | 22 | RO | 24 | 44 | 41 | 37.5 | 6 | F611RO226(1)400(4) |
| 400 | 200 | 27 | RO | 24 | 44 | 41 | 37.5 | 6 | F611RO276(3)400(4) |
| 400 | 200 | 33 | RU | 30 | 45 | 41 | 37.5 | 6 | F611RU336(3)400(4) |
| 630 | 220 | 0.0012 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 80 | F611JF122(1)630(4) |
| 630 | 220 | 0.0015 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 80 | F611JF152(1)630(4) |
| 630 | 220 | 0.0018 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 80 | F611JF182(1)630(4) |
| 630 | 220 | 0.0022 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 80 | F611JF222(1)630(4) |
| 630 | 220 | 0.0027 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 80 | F611JF272(1)630(4) |
| 630 | 220 | 0.0033 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 80 | F611JF332(1)630(4) |
| 630 | 220 | 0.0039 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 80 | F611JF392(1)630(4) |
| 630 | 220 | 0.0047 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 80 | F611JG472(1)630(4) |
| 630 | 220 | 0.0056 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 80 | F611JG562(1)630(4) |
| 630 | 220 | 0.0068 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 80 | F611JG682(1)630(4) |
| 630 | 220 | 0.0082 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 80 | F611JG822(1)630(4) |
| 630 | 220 | 0.01 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 80 | F611JG103(1)630(4) |
| 630 | 220 | 0.012 | JM | 4.5 | 9.5 | 7.2 | 5.0 | 80 | F611JM123(1)630(4) |
| 630 | 220 | 0.015 | JM | 4.5 | 9.5 | 7.2 | 5.0 | 80 | F611JM153(1)630(4) |
| 630 | 220 | 0.018 | JM | 4.5 | 9.5 | 7.2 | 5.0 | 80 | F611JM183(1)630(4) |
| 630 | 220 | 0.022 | JQ | 5 | 10 | 7.2 | 5.0 | 80 | F611JQ223(1)630(4) |
| 630 | 220 | 0.027 | JT | 6 | 11 | 7.2 | 5.0 | 80 | F611JT273(1)630(4) |
| 630 | 220 | 0.033 | JT | 6 | 11 | 7.2 | 5.0 | 80 | F611JT333(1)630(4) |
| 630 | 220 | 0.039 | JU | 7.2 | 13 | 7.2 | 5.0 | 80 | F611JU393(1)630(4) |
| 630 | 220 | 0.047 | JU | 7.2 | 13 | 7.2 | 5.0 | 80 | F611JU473(1)630(4) |
| 630 | 220 | 0.0018 | KE | 2.5 | 6 | 10 | 7.5 | 60 | F611KE182(1)630(4) |
| 630 | 220 | 0.0022 | KE | 2.5 | 6 | 10 | 7.5 | 60 | F611KE222(1)630(4) |
| 630 | 220 | 0.0027 | KE | 2.5 | 6 | 10 | 7.5 | 60 | F611KE272(1)630(4) |
| 630 | 220 | 0.0033 | KE | 2.5 | 6 | 10 | 7.5 | 60 | F611KE332(1)630(4) |
| VDC | VAC | Capacitance Value (µF) | Size Code | B (mm) | H (mm) | L (mm) | Lead Spacing (p) | dV/dt (V/µs) | Part Number |

(1) K= ±10%, M = ±20%; J = ±5% on request

(2) K= ±10%, M = ±20%; J = ±5% not available

(3) M = ±20% (only available tolerance).

(4) Insert lead and packaging code. See Ordering Options Table for available options.

Table 1 – Ratings & Part Number Reference cont.

| VDC | VAC | Capacitance Value (µF) | Size Code | Maximum Dimensions in mm | | | Lead Spacing (p) | dV/dt (V/µs) | Part Number |
|-----|-----|------------------------|-----------|--------------------------|--------|--------|------------------|--------------|--------------------|
| | | | | B | H | L | | | |
| 630 | 220 | 0.0039 | KE | 2.5 | 6 | 10 | 7.5 | 60 | F611KE392(1)630(4) |
| 630 | 220 | 0.0047 | KE | 2.5 | 6 | 10 | 7.5 | 60 | F611KE472(1)630(4) |
| 630 | 220 | 0.0056 | KF | 3 | 8 | 10 | 7.5 | 60 | F611KF562(1)630(4) |
| 630 | 220 | 0.0068 | KF | 3 | 8 | 10 | 7.5 | 60 | F611KF682(1)630(4) |
| 630 | 220 | 0.0082 | KF | 3 | 8 | 10 | 7.5 | 60 | F611KF822(1)630(4) |
| 630 | 220 | 0.01 | KF | 3 | 8 | 10 | 7.5 | 60 | F611KF103(1)630(4) |
| 630 | 220 | 0.012 | KG | 4 | 8 | 10 | 7.5 | 60 | F611KG123(1)630(4) |
| 630 | 220 | 0.015 | KG | 4 | 8 | 10 | 7.5 | 60 | F611KG153(1)630(4) |
| 630 | 220 | 0.018 | KG | 4 | 8 | 10 | 7.5 | 60 | F611KG183(1)630(4) |
| 630 | 220 | 0.022 | KJ | 5 | 10.5 | 10 | 7.5 | 60 | F611KJ223(1)630(4) |
| 630 | 220 | 0.027 | KJ | 5 | 10.5 | 10 | 7.5 | 60 | F611KJ273(1)630(4) |
| 630 | 220 | 0.033 | KJ | 5 | 10.5 | 10 | 7.5 | 60 | F611KJ333(1)630(4) |
| 630 | 220 | 0.039 | KJ | 5 | 10.5 | 10 | 7.5 | 60 | F611KJ393(1)630(4) |
| 630 | 220 | 0.047 | KM | 6 | 12 | 10.5 | 7.5 | 60 | F611KM473(1)630(4) |
| 630 | 220 | 0.056 | KM | 6 | 12 | 10.5 | 7.5 | 60 | F611KM563(1)630(4) |
| 630 | 220 | 0.012 | AG | 4 | 9 | 13 | 10.0 | 40 | F611AG123(1)630(4) |
| 630 | 220 | 0.015 | AG | 4 | 9 | 13 | 10.0 | 40 | F611AG153(1)630(4) |
| 630 | 220 | 0.018 | AG | 4 | 9 | 13 | 10.0 | 40 | F611AG183(1)630(4) |
| 630 | 220 | 0.022 | AG | 4 | 9 | 13 | 10.0 | 40 | F611AG223(1)630(4) |
| 630 | 220 | 0.027 | AG | 4 | 9 | 13 | 10.0 | 40 | F611AG273(1)630(4) |
| 630 | 220 | 0.033 | AK | 5 | 11 | 13 | 10.0 | 40 | F611AK333(1)630(4) |
| 630 | 220 | 0.039 | AK | 5 | 11 | 13 | 10.0 | 40 | F611AK393(1)630(4) |
| 630 | 220 | 0.047 | AK | 5 | 11 | 13 | 10.0 | 40 | F611AK473(1)630(4) |
| 630 | 220 | 0.056 | AP | 6 | 12 | 13 | 10.0 | 40 | F611AP563(1)630(4) |
| 630 | 220 | 0.068 | AO | 7 | 17 | 13 | 10.0 | 40 | F611AP683(1)630(4) |
| 630 | 220 | 0.082 | AO | 7 | 17 | 13 | 10.0 | 40 | F611AP823(1)630(4) |
| 630 | 220 | 0.022 | BB | 4 | 10 | 18 | 15.0 | 25 | F611BB223(1)630(4) |
| 630 | 220 | 0.027 | BB | 4 | 10 | 18 | 15.0 | 25 | F611BB273(1)630(4) |
| 630 | 220 | 0.033 | BB | 4 | 10 | 18 | 15.0 | 25 | F611BB333(1)630(4) |
| 630 | 220 | 0.039 | BB | 4 | 10 | 18 | 15.0 | 25 | F611BB393(1)630(4) |
| 630 | 220 | 0.047 | BB | 4 | 10 | 18 | 15.0 | 25 | F611BB473(1)630(4) |
| 630 | 220 | 0.056 | BC | 5 | 11 | 18 | 15.0 | 25 | F611BC563(1)630(4) |
| 630 | 220 | 0.068 | BC | 5 | 11 | 18 | 15.0 | 25 | F611BC683(1)630(4) |
| 630 | 220 | 0.082 | BC | 5 | 11 | 18 | 15.0 | 25 | F611BC823(1)630(4) |
| 630 | 220 | 0.1 | BE | 5.5 | 12.5 | 18 | 15.0 | 25 | F611BE104(1)630(4) |
| 630 | 220 | 0.12 | BG | 6 | 12 | 18 | 15.0 | 25 | F611BG124(1)630(4) |
| 630 | 220 | 0.15 | BK | 7.5 | 13.5 | 18 | 15.0 | 25 | F611BK154(1)630(4) |
| 630 | 220 | 0.18 | BK | 7.5 | 13.5 | 18 | 15.0 | 25 | F611BK184(1)630(4) |
| 630 | 220 | 0.22 | BP | 8.5 | 14.5 | 18 | 15.0 | 25 | F611BP224(1)630(4) |
| 630 | 220 | 0.27 | BS | 10 | 16 | 18 | 15.0 | 25 | F611BS274(1)630(4) |
| 630 | 220 | 0.33 | BS | 10 | 16 | 18 | 15.0 | 25 | F611BS334(1)630(4) |
| 630 | 220 | 0.39 | BY | 11 | 19 | 18 | 15.0 | 25 | F611BY394(1)630(4) |
| 630 | 220 | 0.47 | BY | 11 | 19 | 18 | 15.0 | 25 | F611BY474(1)630(4) |
| 630 | 220 | 0.12 | DB | 6 | 14.5 | 26 | 22.5 | 12 | F611DB124(1)630(4) |
| 630 | 220 | 0.15 | DB | 6 | 14.5 | 26 | 22.5 | 12 | F611DB154(1)630(4) |
| 630 | 220 | 0.18 | DB | 6 | 14.5 | 26 | 22.5 | 12 | F611DB184(1)630(4) |
| 630 | 220 | 0.22 | DB | 6 | 14.5 | 26 | 22.5 | 12 | F611DB224(1)630(4) |
| 630 | 220 | 0.27 | DI | 7 | 16 | 26 | 22.5 | 12 | F611DI274(1)630(4) |
| 630 | 220 | 0.33 | DI | 7 | 16 | 26 | 22.5 | 12 | F611DI334(1)630(4) |
| 630 | 220 | 0.39 | DH | 8 | 16 | 26 | 22.5 | 12 | F611DH394(1)630(4) |
| 630 | 220 | 0.47 | DJ | 8.5 | 17 | 26 | 22.5 | 12 | F611DJ474(1)630(4) |
| 630 | 220 | 0.56 | DM | 9 | 18.5 | 26 | 22.5 | 12 | F611DM564(1)630(4) |
| 630 | 220 | 0.68 | DO | 10 | 18.5 | 26 | 22.5 | 12 | F611DO684(1)630(4) |
| 630 | 220 | 0.82 | DP | 11 | 20 | 26 | 22.5 | 12 | F611DP824(1)630(4) |
| 630 | 220 | 1 | DU | 13 | 22 | 26 | 22.5 | 12 | F611DU105(1)630(4) |
| 630 | 220 | 1.2 | DY | 15.5 | 24.5 | 26 | 22.5 | 12 | F611DY125(1)630(4) |
| 630 | 220 | 1.5 | DY | 15.5 | 24.5 | 26 | 22.5 | 12 | F611DY155(1)630(4) |
| VDC | VAC | Capacitance Value (µF) | Size Code | B (mm) | H (mm) | L (mm) | Lead Spacing (p) | dV/dt (V/µs) | Part Number |

(1) K= ±10%, M = ±20%; J = ±5% on request

(2) K= ±10%, M = ±20%; J = ±5% not available

(3) M = ±20% (only available tolerance).

(4) Insert lead and packaging code. See Ordering Options Table for available options.

Table 1 – Ratings & Part Number Reference cont.

| VDC | VAC | Capacitance Value (µF) | Size Code | Maximum Dimensions in mm | | | Lead Spacing (p) | dV/dt (V/µs) | Part Number |
|------|-----|------------------------|-----------|--------------------------|--------|--------|------------------|--------------|--------------------|
| | | | | B | H | L | | | |
| 630 | 220 | 0.33 | FB | 9 | 17 | 31.5 | 27.5 | 10 | F611FB334(1)630(4) |
| 630 | 220 | 0.39 | FB | 9 | 17 | 31.5 | 27.5 | 10 | F611FB394(1)630(4) |
| 630 | 220 | 0.47 | FB | 9 | 17 | 31.5 | 27.5 | 10 | F611FB474(1)630(4) |
| 630 | 220 | 0.56 | FB | 9 | 17 | 31.5 | 27.5 | 10 | F611FB564(1)630(4) |
| 630 | 220 | 0.68 | FB | 9 | 17 | 31.5 | 27.5 | 10 | F611FB684(2)630(4) |
| 630 | 220 | 0.82 | FC | 11 | 20 | 31.5 | 27.5 | 10 | F611FC824(1)630(4) |
| 630 | 220 | 1 | FC | 11 | 20 | 31.5 | 27.5 | 10 | F611FC105(2)630(4) |
| 630 | 220 | 1.2 | FI | 13 | 25 | 31.5 | 27.5 | 10 | F611FI125(1)630(4) |
| 630 | 220 | 1.5 | FI | 13 | 25 | 31.5 | 27.5 | 10 | F611FI155(2)630(4) |
| 630 | 220 | 1.8 | FI | 13 | 25 | 31.5 | 27.5 | 10 | F611FI185(3)630(4) |
| 630 | 220 | 2.2 | FN | 14 | 28 | 31.5 | 27.5 | 10 | F611FN225(3)630(4) |
| 630 | 220 | 2.2 | FR | 17.5 | 28 | 31.5 | 27.5 | 10 | F611FR225(1)630(4) |
| 630 | 220 | 2.7 | FR | 17.5 | 28 | 31.5 | 27.5 | 10 | F611FR275(3)630(4) |
| 630 | 220 | 3.3 | FY | 19 | 29 | 31.5 | 27.5 | 10 | F611FY335(2)630(4) |
| 630 | 220 | 3.9 | FY | 22 | 37 | 31.5 | 27.5 | 10 | F611FY395(1)630(4) |
| 630 | 220 | 4.7 | FY | 22 | 37 | 31.5 | 27.5 | 10 | F611FY475(3)630(4) |
| 630 | 220 | 0.82 | RB | 11 | 22 | 41 | 37.5 | 8 | F611RB824(1)630(4) |
| 630 | 220 | 1 | RB | 11 | 22 | 41 | 37.5 | 8 | F611RB105(1)630(4) |
| 630 | 220 | 1.2 | RB | 11 | 22 | 41 | 37.5 | 8 | F611RB125(1)630(4) |
| 630 | 220 | 1.5 | RB | 11 | 22 | 41 | 37.5 | 8 | F611RB155(1)630(4) |
| 630 | 220 | 1.8 | RB | 11 | 22 | 41 | 37.5 | 8 | F611RB185(3)630(4) |
| 630 | 220 | 2.2 | RF | 13 | 24 | 41 | 37.5 | 8 | F611RF225(1)630(4) |
| 630 | 220 | 2.7 | RH | 15 | 26 | 41 | 37.5 | 8 | F611RH275(1)630(4) |
| 630 | 220 | 3.3 | RC | 16 | 28.5 | 41 | 37.5 | 8 | F611RC335(1)630(4) |
| 630 | 220 | 3.9 | RD | 19 | 32 | 41 | 37.5 | 8 | F611RD395(1)630(4) |
| 630 | 220 | 4.7 | RD | 19 | 32 | 41 | 37.5 | 8 | F611RD475(2)630(4) |
| 630 | 220 | 5.6 | RP | 21 | 38 | 41 | 37.5 | 8 | F611RP565(1)630(4) |
| 630 | 220 | 6.8 | RP | 21 | 38 | 41 | 37.5 | 8 | F611RP685(2)630(4) |
| 630 | 220 | 8.2 | RO | 24 | 44 | 41 | 37.5 | 8 | F611RO825(1)630(4) |
| 630 | 220 | 10 | RO | 24 | 44 | 41 | 37.5 | 8 | F611RO106(3)630(4) |
| 630 | 220 | 12 | RU | 30 | 45 | 41 | 37.5 | 8 | F611RU126(3)630(4) |
| 1000 | 250 | 0.001 | JF | 2.5 | 6.5 | 7.2 | 5.0 | 100 | F611JF102(1)1K0(4) |
| 1000 | 250 | 0.0012 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 100 | F611JG122(1)1K0(4) |
| 1000 | 250 | 0.0015 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 100 | F611JG152(1)1K0(4) |
| 1000 | 250 | 0.0018 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 100 | F611JG182(1)1K0(4) |
| 1000 | 250 | 0.0022 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 100 | F611JG222(1)1K0(4) |
| 1000 | 250 | 0.0027 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 100 | F611JG272(1)1K0(4) |
| 1000 | 250 | 0.0033 | JG | 3.5 | 7.5 | 7.2 | 5.0 | 100 | F611JG332(1)1K0(4) |
| 1000 | 250 | 0.0039 | JM | 4.5 | 9.5 | 7.2 | 5.0 | 100 | F611JM392(1)1K0(4) |
| 1000 | 250 | 0.0047 | JM | 4.5 | 9.5 | 7.2 | 5.0 | 100 | F611JM472(1)1K0(4) |
| 1000 | 250 | 0.0056 | JM | 4.5 | 9.5 | 7.2 | 5.0 | 100 | F611JM562(1)1K0(4) |
| 1000 | 250 | 0.0068 | JQ | 5 | 10 | 7.2 | 5.0 | 100 | F611JQ682(1)1K0(4) |
| 1000 | 250 | 0.0082 | JT | 6 | 11 | 7.2 | 5.0 | 100 | F611JT822(1)1K0(4) |
| 1000 | 250 | 0.01 | JT | 6 | 11 | 7.2 | 5.0 | 100 | F611JT103(1)1K0(4) |
| 1000 | 250 | 0.012 | JT | 6 | 11 | 7.2 | 5.0 | 100 | F611JT123(1)1K0(4) |
| 1000 | 250 | 0.015 | JU | 7.2 | 13 | 7.2 | 5.0 | 100 | F611JU153(1)1K0(4) |
| 1000 | 250 | 0.001 | KE | 2.5 | 6 | 10 | 7.5 | 80 | F611KE102(1)1K0(4) |
| 1000 | 250 | 0.0012 | KE | 2.5 | 6 | 10 | 7.5 | 80 | F611KE122(1)1K0(4) |
| 1000 | 250 | 0.0015 | KE | 2.5 | 6 | 10 | 7.5 | 80 | F611KE152(1)1K0(4) |
| 1000 | 250 | 0.0018 | KF | 3 | 8 | 10 | 7.5 | 80 | F611KF182(1)1K0(4) |
| 1000 | 250 | 0.0022 | KF | 3 | 8 | 10 | 7.5 | 80 | F611KF222(1)1K0(4) |
| 1000 | 250 | 0.0027 | KF | 3 | 8 | 10 | 7.5 | 80 | F611KF272(1)1K0(4) |
| 1000 | 250 | 0.0033 | KF | 3 | 8 | 10 | 7.5 | 80 | F611KF332(1)1K0(4) |
| 1000 | 250 | 0.0039 | KG | 4 | 8 | 10 | 7.5 | 80 | F611KG392(1)1K0(4) |
| 1000 | 250 | 0.0047 | KG | 4 | 8 | 10 | 7.5 | 80 | F611KG472(1)1K0(4) |
| 1000 | 250 | 0.0056 | KG | 4 | 8 | 10 | 7.5 | 80 | F611KG562(1)1K0(4) |
| 1000 | 250 | 0.0068 | KG | 4 | 8 | 10 | 7.5 | 80 | F611KG682(1)1K0(4) |
| VDC | VAC | Capacitance Value (µF) | Size Code | B (mm) | H (mm) | L (mm) | Lead Spacing (p) | dV/dt (V/µs) | Part Number |

(1) K= ±10%, M = ±20%; J = ±5% on request

(2) K= ±10%, M = ±20%; J = ±5% not available

(3) M = ±20% (only available tolerance).

(4) Insert lead and packaging code. See Ordering Options Table for available options.

Table 1 – Ratings & Part Number Reference cont.

| VDC | VAC | Capacitance Value (µF) | Size Code | Maximum Dimensions in mm | | | Lead Spacing (p) | dV/dt (V/µs) | Part Number |
|------|-----|------------------------|-----------|--------------------------|--------|--------|------------------|--------------|--------------------|
| | | | | B | H | L | | | |
| 1000 | 250 | 0.0082 | KJ | 5 | 10.5 | 10 | 7.5 | 80 | F611KJ822(1)1K0(4) |
| 1000 | 250 | 0.01 | KJ | 5 | 10.5 | 10 | 7.5 | 80 | F611KJ103(1)1K0(4) |
| 1000 | 250 | 0.012 | KJ | 5 | 10.5 | 10 | 7.5 | 80 | F611KJ123(1)1K0(4) |
| 1000 | 250 | 0.015 | KM | 6 | 12 | 10.5 | 7.5 | 80 | F611KM153(1)1K0(4) |
| 1000 | 250 | 0.018 | KM | 6 | 12 | 10.5 | 7.5 | 80 | F611KM183(1)1K0(4) |
| 1000 | 250 | 0.022 | KM | 6 | 12 | 10.5 | 7.5 | 80 | F611KM223(1)1K0(4) |
| 1000 | 250 | 0.001 | AG | 4 | 9 | 13 | 10.0 | 60 | F611AG102(1)1K0(4) |
| 1000 | 250 | 0.0012 | AG | 4 | 9 | 13 | 10.0 | 60 | F611AG122(1)1K0(4) |
| 1000 | 250 | 0.0015 | AG | 4 | 9 | 13 | 10.0 | 60 | F611AG152(1)1K0(4) |
| 1000 | 250 | 0.0018 | AG | 4 | 9 | 13 | 10.0 | 60 | F611AG182(1)1K0(4) |
| 1000 | 250 | 0.0022 | AG | 4 | 9 | 13 | 10.0 | 60 | F611AG222(1)1K0(4) |
| 1000 | 250 | 0.0027 | AG | 4 | 9 | 13 | 10.0 | 60 | F611AG272(1)1K0(4) |
| 1000 | 250 | 0.0033 | AG | 4 | 9 | 13 | 10.0 | 60 | F611AG332(1)1K0(4) |
| 1000 | 250 | 0.0039 | AG | 4 | 9 | 13 | 10.0 | 60 | F611AG392(1)1K0(4) |
| 1000 | 250 | 0.0047 | AG | 4 | 9 | 13 | 10.0 | 60 | F611AG472(1)1K0(4) |
| 1000 | 250 | 0.0056 | AG | 4 | 9 | 13 | 10.0 | 60 | F611AG562(1)1K0(4) |
| 1000 | 250 | 0.0068 | AG | 4 | 9 | 13 | 10.0 | 60 | F611AG682(1)1K0(4) |
| 1000 | 250 | 0.0082 | AG | 4 | 9 | 13 | 10.0 | 60 | F611AG822(1)1K0(4) |
| 1000 | 250 | 0.01 | AG | 4 | 9 | 13 | 10.0 | 60 | F611AG103(1)1K0(4) |
| 1000 | 250 | 0.012 | AG | 4 | 9 | 13 | 10.0 | 60 | F611AG123(1)1K0(4) |
| 1000 | 250 | 0.015 | AK | 5 | 11 | 13 | 10.0 | 60 | F611AK153(1)1K0(4) |
| 1000 | 250 | 0.018 | AK | 5 | 11 | 13 | 10.0 | 60 | F611AK183(1)1K0(4) |
| 1000 | 250 | 0.022 | AP | 6 | 12 | 13 | 10.0 | 60 | F611AP223(1)1K0(4) |
| 1000 | 250 | 0.027 | AP | 6 | 12 | 13 | 10.0 | 60 | F611AP273(1)1K0(4) |
| 1000 | 250 | 0.033 | AO | 7 | 17 | 13 | 10.0 | 60 | F611AP333(1)1K0(4) |
| 1000 | 250 | 0.0082 | BB | 4 | 10 | 18 | 15.0 | 30 | F611BB822(1)1K0(4) |
| 1000 | 250 | 0.01 | BB | 4 | 10 | 18 | 15.0 | 30 | F611BB103(1)1K0(4) |
| 1000 | 250 | 0.012 | BB | 4 | 10 | 18 | 15.0 | 30 | F611BB123(1)1K0(4) |
| 1000 | 250 | 0.015 | BB | 4 | 10 | 18 | 15.0 | 30 | F611BB153(1)1K0(4) |
| 1000 | 250 | 0.018 | BB | 4 | 10 | 18 | 15.0 | 30 | F611BB183(1)1K0(4) |
| 1000 | 250 | 0.022 | BC | 5 | 11 | 18 | 15.0 | 30 | F611BC223(1)1K0(4) |
| 1000 | 250 | 0.027 | BC | 5 | 11 | 18 | 15.0 | 30 | F611BC273(1)1K0(4) |
| 1000 | 250 | 0.033 | BC | 5 | 11 | 18 | 15.0 | 30 | F611BC333(1)1K0(4) |
| 1000 | 250 | 0.039 | BE | 5.5 | 12.5 | 18 | 15.0 | 30 | F611BE393(1)1K0(4) |
| 1000 | 250 | 0.047 | BG | 6 | 12 | 18 | 15.0 | 30 | F611BG473(1)1K0(4) |
| 1000 | 250 | 0.056 | BK | 7.5 | 13.5 | 18 | 15.0 | 30 | F611BK563(1)1K0(4) |
| 1000 | 250 | 0.068 | BK | 7.5 | 13.5 | 18 | 15.0 | 30 | F611BK683(1)1K0(4) |
| 1000 | 250 | 0.082 | BP | 8.5 | 14.5 | 18 | 15.0 | 30 | F611BP823(1)1K0(4) |
| 1000 | 250 | 0.1 | BP | 8.5 | 14.5 | 18 | 15.0 | 30 | F611BP104(1)1K0(4) |
| 1000 | 250 | 0.12 | BS | 10 | 16 | 18 | 15.0 | 30 | F611BS124(1)1K0(4) |
| 1000 | 250 | 0.15 | BY | 11 | 19 | 18 | 15.0 | 30 | F611BY154(1)1K0(4) |
| 1000 | 250 | 0.18 | BY | 11 | 19 | 18 | 15.0 | 30 | F611BY184(1)1K0(4) |
| 1000 | 250 | 0.033 | DB | 6 | 14.5 | 26 | 22.5 | 15 | F611DB333(1)1K0(4) |
| 1000 | 250 | 0.039 | DB | 6 | 14.5 | 26 | 22.5 | 15 | F611DB393(1)1K0(4) |
| 1000 | 250 | 0.047 | DB | 6 | 14.5 | 26 | 22.5 | 15 | F611DB473(1)1K0(4) |
| 1000 | 250 | 0.056 | DB | 6 | 14.5 | 26 | 22.5 | 15 | F611DB563(1)1K0(4) |
| 1000 | 250 | 0.068 | DB | 6 | 14.5 | 26 | 22.5 | 15 | F611DB683(1)1K0(4) |
| 1000 | 250 | 0.082 | DB | 6 | 14.5 | 26 | 22.5 | 15 | F611DB823(1)1K0(4) |
| 1000 | 250 | 0.1 | DB | 6 | 14.5 | 26 | 22.5 | 15 | F611DB104(1)1K0(4) |
| 1000 | 250 | 0.12 | DI | 7 | 16 | 26 | 22.5 | 15 | F611DI124(1)1K0(4) |
| 1000 | 250 | 0.15 | DI | 7 | 16 | 26 | 22.5 | 15 | F611DI154(1)1K0(4) |
| 1000 | 250 | 0.18 | DH | 8 | 16 | 26 | 22.5 | 15 | F611DH184(1)1K0(4) |
| 1000 | 250 | 0.22 | DM | 9 | 18.5 | 26 | 22.5 | 15 | F611DM224(1)1K0(4) |
| 1000 | 250 | 0.27 | DO | 10 | 18.5 | 26 | 22.5 | 15 | F611DO274(1)1K0(4) |
| 1000 | 250 | 0.33 | DP | 11 | 20 | 26 | 22.5 | 15 | F611DP334(1)1K0(4) |
| 1000 | 250 | 0.39 | DU | 13 | 22 | 26 | 22.5 | 15 | F611DU394(1)1K0(4) |
| 1000 | 250 | 0.47 | DU | 13 | 22 | 26 | 22.5 | 15 | F611DU474(1)1K0(4) |
| VDC | VAC | Capacitance Value (µF) | Size Code | B (mm) | H (mm) | L (mm) | Lead Spacing (p) | dV/dt (V/µs) | Part Number |

(1) K= ±10%, M = ±20%; J = ±5% on request

(2) K= ±10%, M = ±20%; J = ±5% not available

(3) M = ±20% (only available tolerance).

(4) Insert lead and packaging code. See Ordering Options Table for available options.

Table 1 – Ratings & Part Number Reference cont.

| VDC | VAC | Capacitance Value (µF) | Size Code | Maximum Dimensions in mm | | | Lead Spacing (p) | dV/dt (V/µs) | Part Number |
|------|-----|------------------------|-----------|--------------------------|--------|--------|------------------|--------------|--------------------|
| | | | | B | H | L | | | |
| 1000 | 250 | 0.56 | DY | 15.5 | 24.5 | 26 | 22.5 | 15 | F611DY564(1)1K0(4) |
| 1000 | 250 | 0.68 | DY | 15.5 | 24.5 | 26 | 22.5 | 15 | F611DY684(1)1K0(4) |
| 1000 | 250 | 0.15 | FB | 9 | 17 | 31.5 | 27.5 | 12 | F611FB154(1)1K0(4) |
| 1000 | 250 | 0.18 | FB | 9 | 17 | 31.5 | 27.5 | 12 | F611FB184(1)1K0(4) |
| 1000 | 250 | 0.22 | FB | 9 | 17 | 31.5 | 27.5 | 12 | F611FB224(1)1K0(4) |
| 1000 | 250 | 0.27 | FB | 9 | 17 | 31.5 | 27.5 | 12 | F611FB274(1)1K0(4) |
| 1000 | 250 | 0.33 | FB | 9 | 17 | 31.5 | 27.5 | 12 | F611FB334(3)1K0(4) |
| 1000 | 250 | 0.39 | FC | 11 | 20 | 31.5 | 27.5 | 12 | F611FC394(1)1K0(4) |
| 1000 | 250 | 0.47 | FC | 11 | 20 | 31.5 | 27.5 | 12 | F611FC474(2)1K0(4) |
| 1000 | 250 | 0.56 | FI | 13 | 25 | 31.5 | 27.5 | 12 | F611FI564(1)1K0(4) |
| 1000 | 250 | 0.68 | FI | 13 | 25 | 31.5 | 27.5 | 12 | F611FI684(2)1K0(4) |
| 1000 | 250 | 0.82 | FN | 14 | 28 | 31.5 | 27.5 | 12 | F611FN824(2)1K0(4) |
| 1000 | 250 | 1 | FR | 17.5 | 28 | 31.5 | 27.5 | 12 | F611FR105(1)1K0(4) |
| 1000 | 250 | 1.2 | FR | 17.5 | 28 | 31.5 | 27.5 | 12 | F611FR125(3)1K0(4) |
| 1000 | 250 | 1.5 | FS | 19 | 29 | 31.5 | 27.5 | 12 | F611FS155(3)1K0(4) |
| 1000 | 250 | 1.8 | FY | 22 | 37 | 31.5 | 27.5 | 12 | F611FY185(1)1K0(4) |
| 1000 | 250 | 2.2 | FY | 22 | 37 | 31.5 | 27.5 | 12 | F611FY225(3)1K0(4) |
| 1000 | 250 | 0.47 | RB | 11 | 22 | 41 | 37.5 | 10 | F611RB474(1)1K0(4) |
| 1000 | 250 | 0.56 | RB | 11 | 22 | 41 | 37.5 | 10 | F611RB564(1)1K0(4) |
| 1000 | 250 | 0.68 | RB | 11 | 22 | 41 | 37.5 | 10 | F611RB684(1)1K0(4) |
| 1000 | 250 | 0.82 | RF | 13 | 24 | 41 | 37.5 | 10 | F611RF824(1)1K0(4) |
| 1000 | 250 | 1 | RF | 13 | 24 | 41 | 37.5 | 10 | F611RF105(2)1K0(4) |
| 1000 | 250 | 1.2 | RH | 15 | 26 | 41 | 37.5 | 10 | F611RH125(1)1K0(4) |
| 1000 | 250 | 1.5 | RC | 16 | 28.5 | 41 | 37.5 | 10 | F611RC155(2)1K0(4) |
| 1000 | 250 | 1.8 | RD | 19 | 32 | 41 | 37.5 | 10 | F611RD185(1)1K0(4) |
| 1000 | 250 | 2.2 | RD | 19 | 32 | 41 | 37.5 | 10 | F611RD225(3)1K0(4) |
| 1000 | 250 | 2.7 | RP | 21 | 38 | 41 | 37.5 | 10 | F611RP275(2)1K0(4) |
| 1000 | 250 | 3.3 | RO | 24 | 44 | 41 | 37.5 | 10 | F611RO335(1)1K0(4) |
| 1000 | 250 | 3.9 | RO | 24 | 44 | 41 | 37.5 | 10 | F611RO395(2)1K0(4) |
| 1000 | 250 | 4.7 | RU | 30 | 45 | 41 | 37.5 | 10 | F611RU475(1)1K0(4) |
| 1000 | 250 | 5.6 | RU | 30 | 45 | 41 | 37.5 | 10 | F611RU565(3)1K0(4) |
| VDC | VAC | Capacitance Value (µF) | Size Code | B (mm) | H (mm) | L (mm) | Lead Spacing (p) | dV/dt (V/µs) | Part Number |

- (1) K= ±10%, M = ±20%; J = ±5% on request
- (2) K= ±10%, M = ±20%; J = ±5% not available
- (3) M = ±20% (only available tolerance).
- (4) Insert lead and packaging code. See Ordering Options Table for available options.

Soldering Process

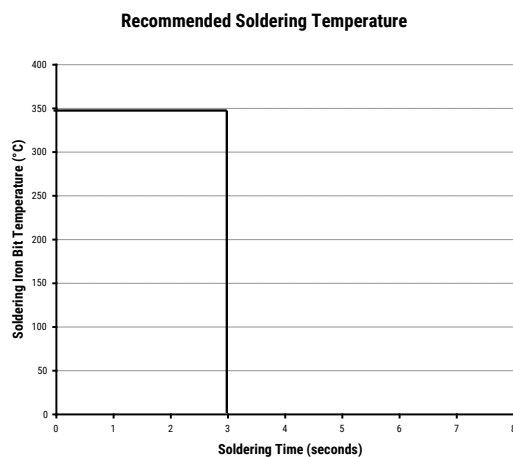
The implementation of the RoHS directive has resulted in the selection of SnAuCu (SAC) alloys or SnCu alloys as primary solder. This has increased the liquidus temperature from that of 183°C for SnPb eutectic alloy to 217 – 221°C for the new alloys. As a result, the heat stress to the components, even in wave soldering, has increased considerably due to higher pre-heat and wave temperatures. Polypropylene capacitors are especially sensitive to heat (the melting point of polypropylene is 160 – 170°C). Wave soldering can be destructive, especially for mechanically small polypropylene capacitors (with lead spacing of 5 mm to 15 mm), and great care has to be taken during soldering. In general, the wave soldering curve from IEC Publication 61760-1 Edition 2 serves as a solid guideline for successful soldering. Please see Figure 1. The recommended solder profiles from KEMET should be used. Please consult KEMET with any questions.

Reflow soldering is not recommended for through-hole film capacitors. Exposing capacitors to a soldering profile in excess of the above the recommended limits may result to degradation or permanent damage to the capacitors.

Do not place the polypropylene capacitor through an adhesive curing oven to cure resin for surface mount components. Insert through-hole parts after the curing of surface mount parts. Consult KEMET to discuss the actual temperature profile in the oven, if through-hole components must pass through the adhesive curing process. A maximum two soldering cycles is recommended. Please allow time for the capacitor surface temperature to return to a normal temperature before the second soldering cycle.

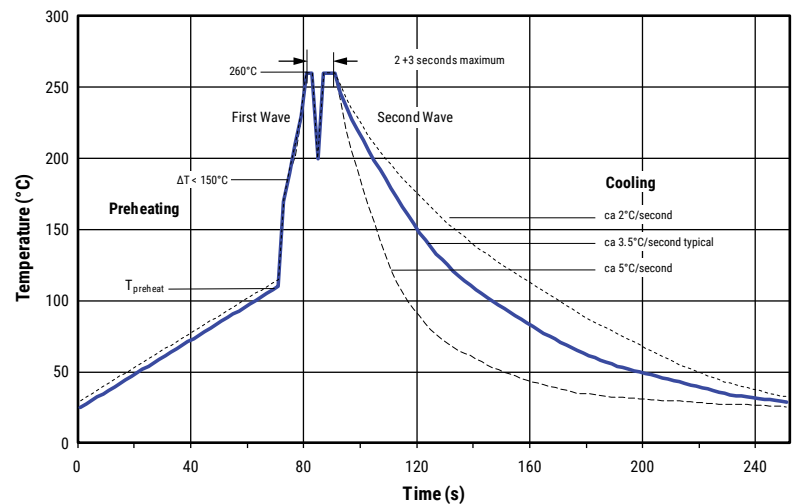
Manual Soldering Recommendations

Following is the recommendation for manual soldering with a soldering iron.



Soldering iron tip temperature should be set at 350°C (+10°C maximum) with the soldering duration not to exceed more than three seconds.

Wave Soldering Recommendations



Soldering Process cont.

Wave Soldering Recommendations cont.

1. The table indicates the maximum set-up temperature of the soldering process
 Figure 1

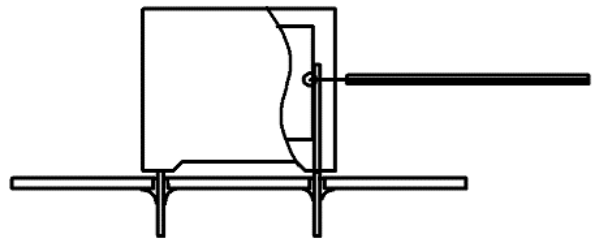
| Dielectric Film Material | Maximum Preheat Temperature | | | Maximum Peak Soldering Temperature | |
|--------------------------|-----------------------------|-------------------------|-------------------------|------------------------------------|-------------------------|
| | Capacitor pitch ≤ 10 mm | Capacitor pitch = 15 mm | Capacitor pitch > 15 mm | Capacitor pitch ≤ 15 mm | Capacitor pitch > 15 mm |
| Polyester | 130°C | 130°C | 130°C | 270°C | 270°C |
| Polypropylene | 100°C | 110°C | 130°C | 260°C | 270°C |
| Paper | 130°C | 130°C | 140°C | 270°C | 270°C |
| Polyphenylene Sulphide | 150°C | 150°C | 160°C | 270°C | 270°C |

2. The maximum temperature measured inside the capacitor:

Set the temperature so that inside the element the maximum temperature is below the limit:

| Dielectric Film Material | Maximum temperature measured inside the element |
|--------------------------|---|
| Polyester | 160°C |
| Polypropylene | 110°C |
| Paper | 160°C |
| Polyphenylene Sulphide | 160°C |

Temperature monitored inside the capacitor.



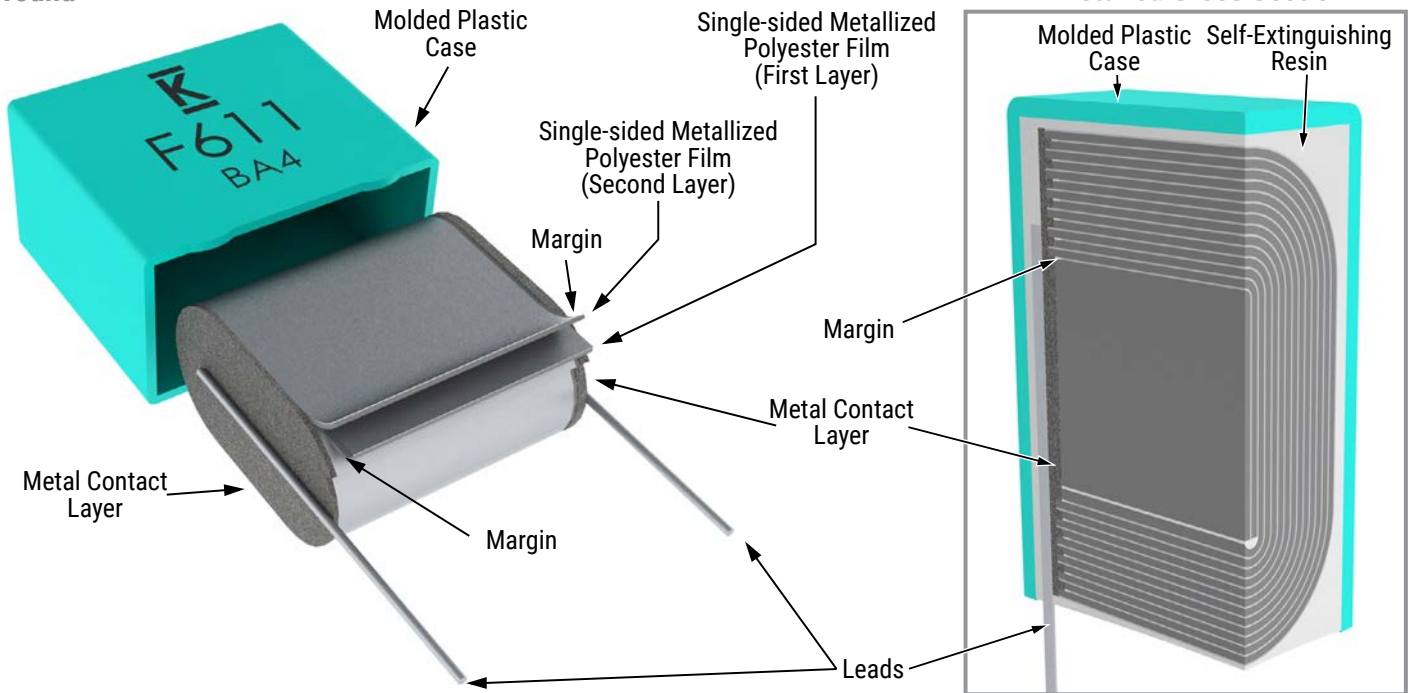
Selective Soldering Recommendations

Selective dip soldering is a variation of reflow soldering. In this method, the printed circuit board with through-hole components to be soldered is preheated and transported over the solder bath as in normal flow soldering without touching the solder. When the board is over the bath, it is stopped, and pre-designed solder pots are lifted from the bath with molten solder only at the places of the selected components and pressed against the lower surface of the board to solder the components.

The temperature profile for selective soldering is similar to the double wave flow soldering outlined in this document, **however, instead of two baths, there is only one bath with a time from 3 to 10 seconds.** In selective soldering, the risk of overheating is greater than in double wave flow soldering, and great care must be taken so that the parts are not overheated.

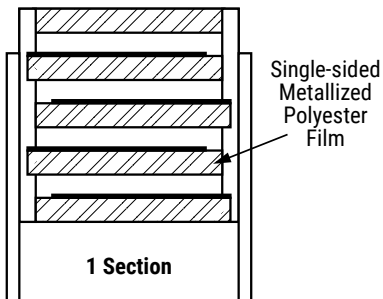
Construction

Wound



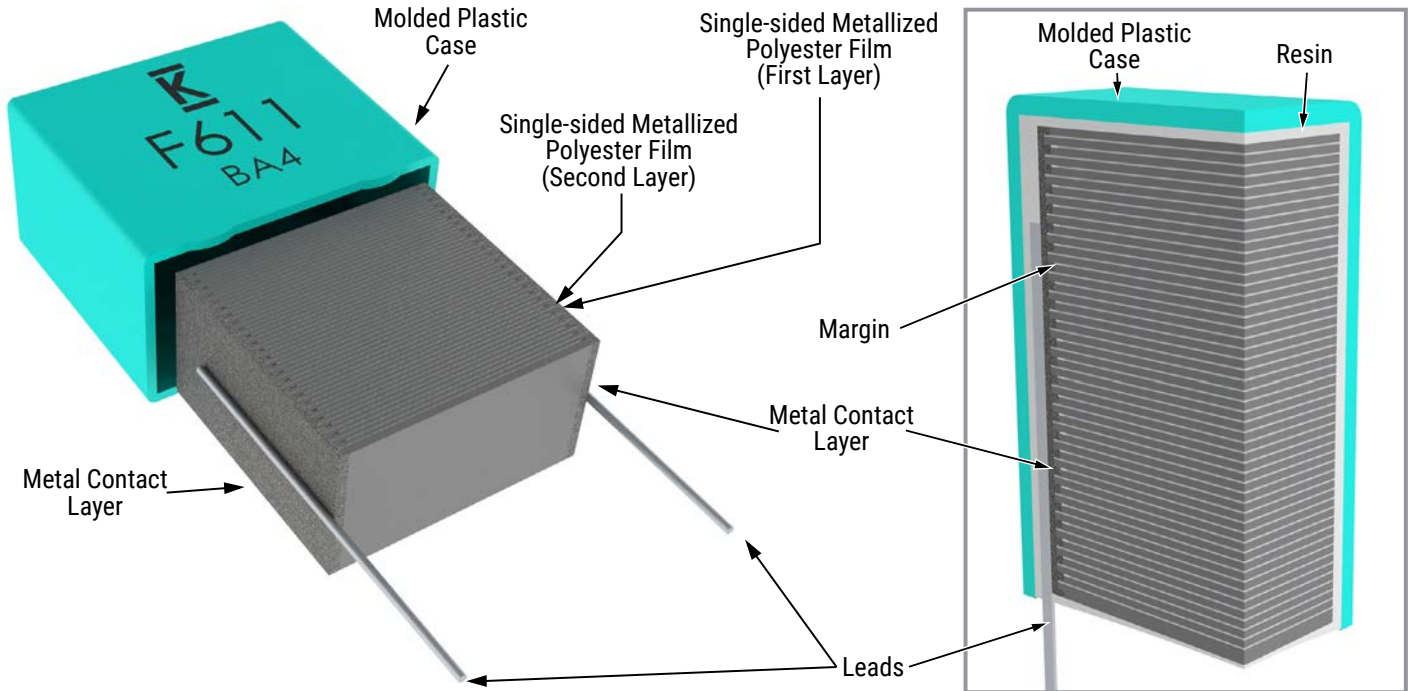
Above image features the 5 mm pitch.

Winding Scheme



Construction cont.

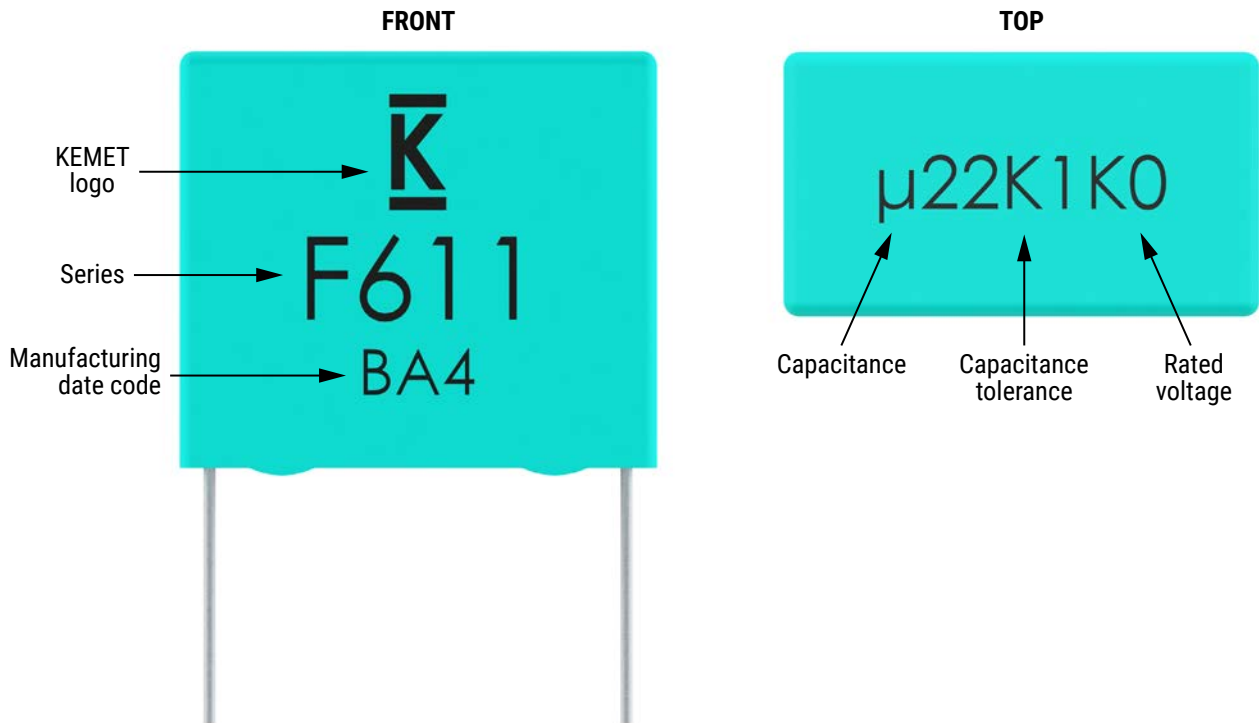
Stacked



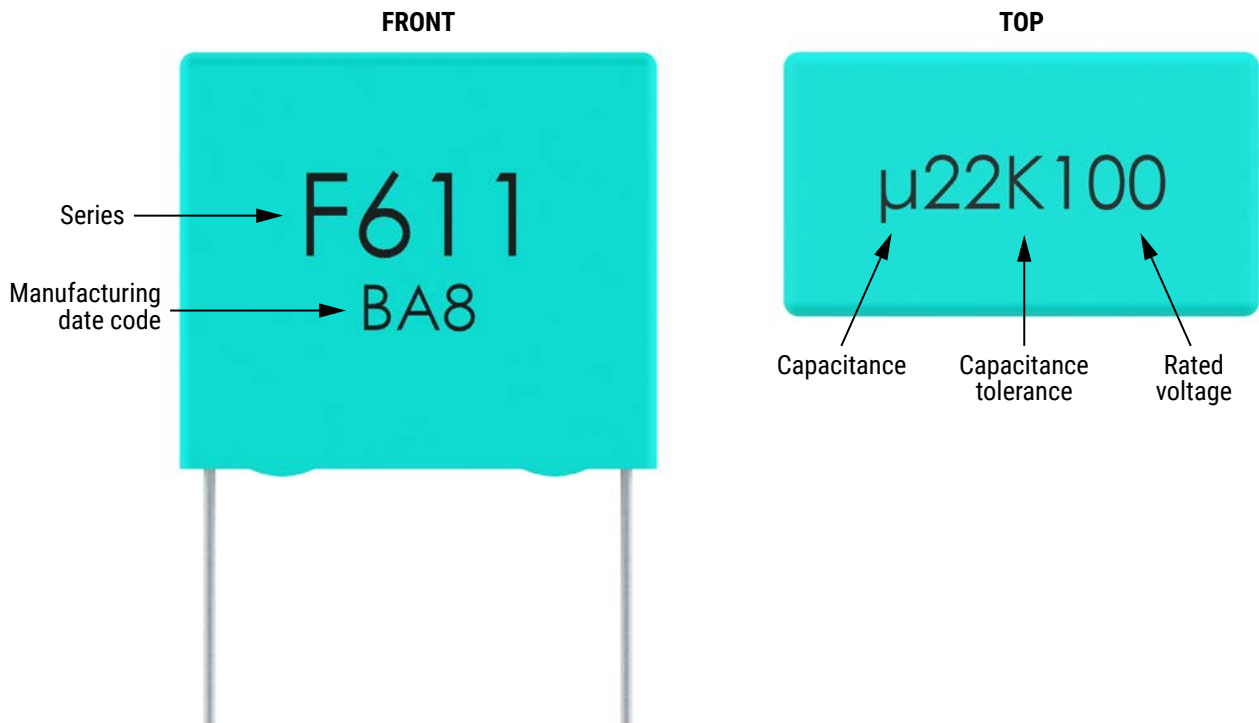
Above image features the 5 mm pitch.

Marking

F611 Series, ≥ 7.5 mm Pitch

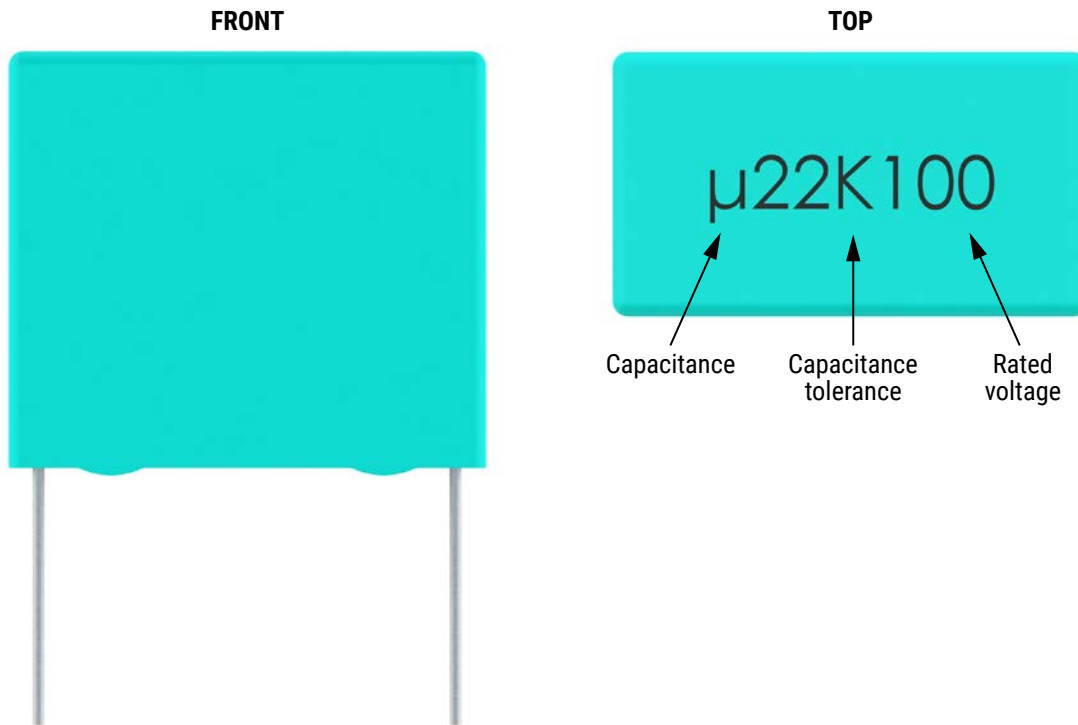


F611 Series, 5 and 7.5 mm Pitch

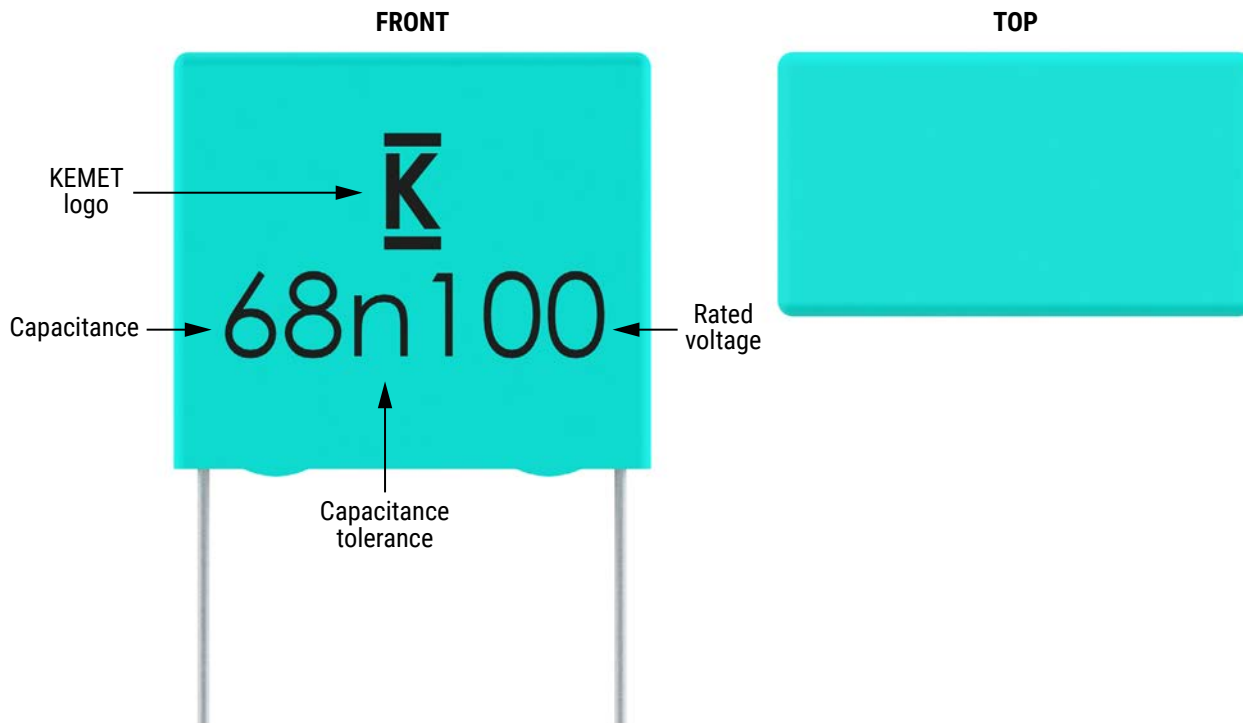


Marking cont.

F612 Series, 5, 7.5 and 10 mm Pitch



F612 Series, 5 mm Pitch



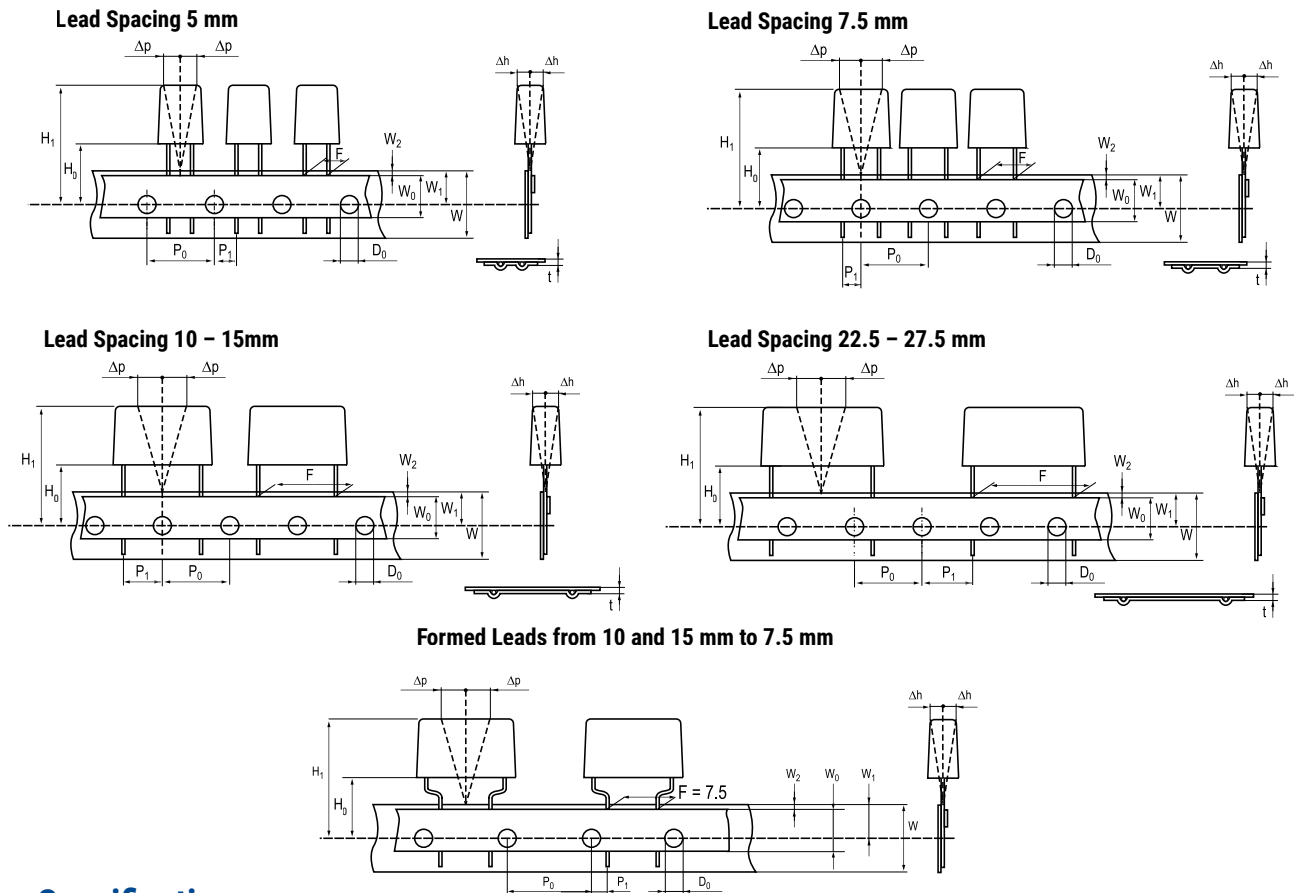
Packaging Quantities

| Size Code | Lead Spacing | Thickness (mm) | Height (mm) | Length (mm) | Bulk Short leads | Bulk Long leads | Standard Reel ø 355 mm | Large Reel ø 500 mm | Ammo | Pizza |
|-----------|--------------|----------------|-------------|-------------|------------------|-----------------|---------------------------|------------------------|-------|-------|
| JF | 5.0 | 2.5 | 6.5 | 7.2 | 3,000 | 4,000 | 2,500 | | 3,500 | |
| JG | | 3.5 | 7.5 | 7.2 | 2,000 | 3,000 | 1,800 | | 2,500 | |
| JM | | 4.5 | 9.5 | 7.2 | 1,500 | 2,000 | 1,400 | | 1,900 | |
| JQ | | 5.0 | 10.0 | 7.2 | 1,000 | 1,500 | 1,200 | | 1,700 | |
| JT | | 6.0 | 11.0 | 7.2 | 2,000 | 1,000 | 1,000 | | 1,400 | |
| JU | | 7.2 | 13.0 | 7.2 | 1,500 | 750 | 800 | | 1,150 | |
| KE | 7.5 | 2.5 | 6.0 | 10.0 | 2,000 | 3,000 | 2,500 | | 3,500 | |
| KF | | 3.0 | 8.0 | 10.0 | 1,500 | 1,750 | 2,100 | | 2,800 | |
| KG | | 4.0 | 8.0 | 10.0 | 2,000 | 1,500 | 1,500 | | 2,100 | |
| KJ | | 5.0 | 10.5 | 10.0 | 1,500 | 1,000 | 1,200 | | 1,600 | |
| KM | | 6.0 | 12.0 | 10.5 | 1,000 | 800 | 1,000 | | 1,350 | |
| KH | | 4.0 | 9.0 | 10.0 | 2,000 | 1,500 | 1,500 | | 2,100 | |
| AN | 10 | 3.5 | 9.0 | 13.0 | 2,200 | 3,200 | 850 | 1,700 | 1,150 | |
| AG | | 4.0 | 9.0 | 13.0 | 2,000 | 2,200 | 750 | 1,500 | 1,000 | |
| AK | | 5.0 | 11.0 | 13.0 | 1,300 | 2,000 | 600 | 1,250 | 800 | |
| AP | | 6.0 | 12.0 | 13.0 | 1,000 | 1,800 | 500 | 1,000 | 680 | |
| AO | | 7.0 | 17.0 | 13.0 | 600 | 900 | 450 | 900 | 580 | |
| AL | | 9.5 | 7.5 | 13.0 | 1,100 | 2,000 | 300 | 600 | 430 | |
| AE | | 4.0 | 8.0 | 13.0 | 2,000 | 2,200 | 750 | 1,500 | 1,000 | |
| BB | 15 | 4.0 | 10.0 | 18.0 | 1,300 | 1,500 | 750 | 1,500 | 1,000 | 1,411 |
| BC | | 5.0 | 11.0 | 18.0 | 1,000 | 1,250 | 600 | 1,250 | 800 | 1,139 |
| BE | | 5.5 | 12.5 | 18.0 | 800 | 1,100 | 550 | 1,100 | 750 | 1,020 |
| BG | | 6.0 | 12.0 | 18.0 | 1,750 | 1,000 | 500 | 1,000 | 680 | 935 |
| BK | | 7.5 | 13.5 | 18.0 | 1,000 | 800 | 350 | 800 | 500 | 748 |
| BI | | 6.0 | 17.5 | 18.0 | 1,000 | 800 | 500 | 1,000 | 680 | 935 |
| BP | | 8.5 | 14.5 | 18.0 | 1,000 | 650 | 300 | 700 | 440 | 663 |
| BT | | 9.0 | 12.5 | 18.0 | 1,000 | 700 | 270 | 650 | 410 | 629 |
| BO | | 7.5 | 18.5 | 18.0 | 900 | 600 | 350 | 800 | 500 | 748 |
| BS | | 10.0 | 16.0 | 18.0 | 750 | 550 | 300 | 600 | 380 | 561 |
| BR | | 13.0 | 12.0 | 18.0 | 750 | 520 | 200 | 480 | 280 | 425 |
| BY | | 11.0 | 19.0 | 18.0 | 450 | 400 | 250 | 500 | 340 | 510 |
| BA | | 8.5 | 12.5 | 18.0 | 1,000 | 650 | 300 | 700 | 440 | 663 |
| BZ | | 12.0 | 20.0 | 18.0 | 350 | 300 | 220 | 450 | 330 | 459 |

Packaging Quantities cont.

| Size Code | Lead Spacing | Thickness (mm) | Height (mm) | Length (mm) | Bulk Short Leads | Bulk Long Leads | Standard Reel ø 355 mm | Large Reel ø 500 mm | Ammo | Pizza |
|-----------|--------------|----------------|-------------|-------------|------------------|-----------------|---------------------------|------------------------|------|-------|
| DB | 22.5 | 6.0 | 14.5 | 26.0 | 1,638 | 702 | 300 | 700 | 464 | 660 |
| DI | | 7.0 | 16.0 | 26.0 | 1,188 | 594 | 250 | 550 | 380 | 564 |
| DH | | 8.0 | 16.0 | 26.0 | 1,026 | 513 | 240 | 500 | 330 | 492 |
| DJ | | 8.5 | 17.0 | 26.0 | 972 | 486 | 250 | 450 | 280 | 468 |
| DM | | 9.0 | 18.5 | 26.0 | 918 | 459 | 200 | 400 | 300 | 444 |
| DO | | 10.0 | 18.5 | 26.0 | 810 | 405 | 160 | 350 | 235 | 396 |
| DP | | 11.0 | 20.0 | 26.0 | 756 | 378 | 190 | 350 | 217 | 360 |
| DU | | 13.0 | 22.0 | 26.0 | 540 | 324 | 150 | 300 | 200 | 300 |
| DY | | 15.5 | 24.5 | 26.0 | 450 | 270 | 120 | 250 | 170 | 252 |
| FB | 27.5 | 9.0 | 17.0 | 31.5 | 816 | 408 | | | | 370 |
| FC | | 11.0 | 20.0 | 31.5 | 672 | 336 | | | | 300 |
| FI | | 13.0 | 25.0 | 31.5 | 480 | 288 | | | | 250 |
| FN | | 14.0 | 28.0 | 31.5 | 352 | 176 | | | | 230 |
| FO | | 17.0 | 40.0 | 31.5 | 216 | 144 | | | | 190 |
| FR | | 17.5 | 28.0 | 31.5 | 256 | 128 | | | | 190 |
| FS | | 19.0 | 29.0 | 31.5 | 256 | 128 | | | | 170 |
| FY | | 22.0 | 37.0 | 31.5 | 168 | 112 | | | | 150 |
| FH | | 21.0 | 12.5 | 31.5 | 392 | 168 | | | | 150 |
| FQ | | 27.5 | 16.0 | 31.5 | 280 | 120 | | | | 120 |
| FT | | 31.0 | 19.0 | 31.5 | 240 | 120 | | | | 100 |
| RB | 37.5 | 11.0 | 22.0 | 41.0 | 420 | 252 | | | | 210 |
| RF | | 13.0 | 24.0 | 41.0 | 360 | 216 | | | | 175 |
| RH | | 15.0 | 26.0 | 41.0 | 300 | 180 | | | | 154 |
| RC | | 16.0 | 28.5 | 41.0 | 216 | 108 | | | | 140 |
| RD | | 19.0 | 32.0 | 41.0 | 192 | 96 | | | | 119 |
| RP | | 21.0 | 38.0 | 41.0 | 126 | 84 | | | | 105 |
| RO | | 24.0 | 44.0 | 41.0 | 108 | 72 | | | | 91 |
| RU | | 30.0 | 45.0 | 41.0 | 90 | 60 | | | | 77 |
| RV | | 24.0 | 15.0 | 41.0 | 252 | 108 | | | | 91 |
| RW | | 24.0 | 19.0 | 41.0 | 216 | 108 | | | | 91 |

Lead Taping & Packaging (IEC 60286-2)



Taping Specification

| Dimensions in mm | | | | | | | | | | Standard IEC 60286-2 |
|-------------------------------|-----------|--------------------|----------|----------|------------|----------|----------|-------------|-------------|----------------------|
| Lead Spacing | +0.6/-0.1 | F | 5 | 7.5 | Formed 7.5 | 10 | 15 | 22.5 | 27.5 | F |
| Carrier Tape Width | ±0.5 | W | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18±1/-0.5 |
| Hold-down Tape Width | Minimum | W ₀ | 5 | 5 | 5 | 5 | 5 | 5 | 5 | |
| Position of Sprocket Hole | ±0.5 | W ₁ | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9+0.75/-0.5 |
| Distance Between Tapes | Maximum | W ₂ | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Sprocket Hole Diameter | ±0.2 | D ₀ | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Feed Hole Lead Spacing | ±0.3 | P ₀ (1) | 12.7 | 12.7 | 12.7 (4) | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 |
| Distance Lead - Feed Hole | ±0.7 | P ₁ | 3.85 | 3.75 | 3.75 | 7.7 | 5.2 | 5.3 | 5.3 | P1 |
| Deviation Tape - Plane | Maximum | Δ p | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 |
| Lateral Deviation | Maximum | Δ h | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Total Thickness | ±0.2 | t | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.9 Maximum | 0.9 Maximum | 0.9 Maximum |
| Sprocket Hole/Cap Body | Nominal | H ₀ (2) | 18.5±0.5 | 18.5±0.5 | 18.5±0.5 | 18.5±0.5 | 18.5±0.5 | 18.5±0.5 | 18.5±0.5 | 18.0±2/-0 |
| Sprocket Hole/Top of Cap Body | Maximum | H ₁ (3) | 32 | 31 | 43 | 43 | 43 | 58 | 58 | 58 Maximum |

(1) Maximum cumulative feed hole error, 1 mm per 20 parts

(2) 16.5 mm available on request

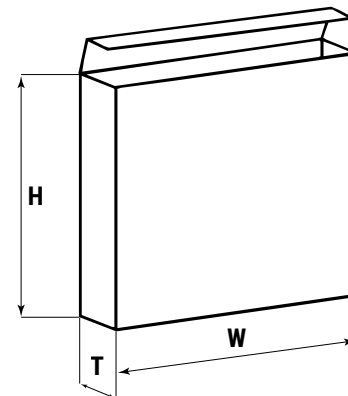
(3) Depending on case size

(4) 15 mm available on request

Lead Taping & Packaging (IEC 60286-2) cont.

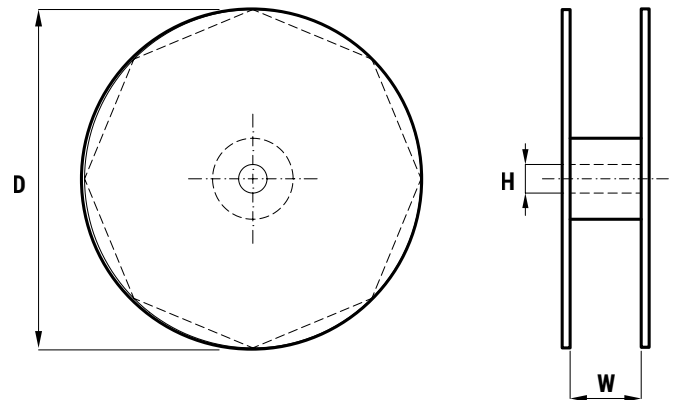
Ammo Specifications

| Series | Dimensions (mm) | | |
|--------------------------------------|-----------------|-----|----|
| | H | W | T |
| R4x, R4x+R, R7x, RSB | 360 | 340 | 59 |
| F5A, F5B, F5D | | | |
| F6xx, F8xx | | | |
| PHExxx, PMExxx, PMRxxx, SMR & PFR | 330 | 330 | 50 |



Reel Specifications

| Series | Dimensions (mm) | | |
|--------------------------------------|-----------------|----|----------|
| | D | H | W |
| R4x, R4x+R, R7x, RSB | 355 500 | 30 | 55 (Max) |
| F5A, F5B, F5D | | 25 | |
| F6xx, F8xx | | | |
| PHExxx, PMExxx, PMRxxx, SMR & PFR | 360 500 | 30 | 46 (Max) |



Manufacturing Date Code (IEC-60062)

| Y = Year, Z = Month | | | |
|---------------------|------|-----------|------|
| Year | Code | Month | Code |
| 2010 | A | January | 1 |
| 2011 | B | February | 2 |
| 2012 | C | March | 3 |
| 2013 | D | April | 4 |
| 2014 | E | May | 5 |
| 2015 | F | June | 6 |
| 2016 | H | July | 7 |
| 2017 | J | August | 8 |
| 2018 | K | September | 9 |
| 2019 | L | October | 0 |
| 2020 | M | November | N |
| 2021 | N | December | D |
| 2022 | P | | |
| 2023 | R | | |
| 2024 | S | | |
| 2025 | T | | |
| 2026 | U | | |
| 2027 | V | | |
| 2028 | W | | |
| 2029 | X | | |
| 2030 | A | | |

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[F611AG472K1K0L](#) [F611AG472K1K0R](#) [F611AG472M1K0C](#) [F611AG562M1K0R](#) [F611AG682K1K0A](#)
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