

MDK Series Metallized Polyester Film, Dual In-Line, Low ESR/ESL, 50 – 630 VDC

Overview

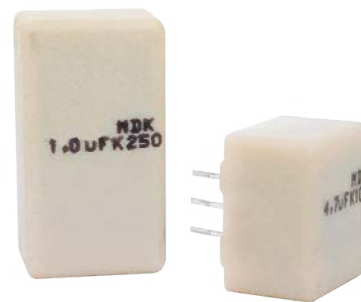
Dual in-line (DIL) metallized polyester (PET) film capacitor. Encapsulation in self-extinguishing material meeting the requirements of UL 94 V-0.

Applications

Typical applications include high frequency switched-mode power supplies, DC/DC converters and input/output filtering.

Benefits

- Rated voltage: 50 – 630 VDC
- Rated voltage: 30 – 220 VAC
- Capacitance range: 0.033 – 15 μ F
- Capacitance tolerance: \pm 5%, \pm 10%, other tolerances on request
- Climatic category: 55/125/56
- RoHS Compliant and lead-free terminations
- Operating temperature range of -55°C to +125°C



Legacy Part Number System

| MDK | 10 | 333 | K | 50 | A52 | P3 | TUBE |
|------------------------------------|-------------------|---|---|--------------------------------|---------------------|--|----------------------------|
| Series | Lead Spacing (mm) | Capacitance Code (pF) | Capacitance Tolerance | Rated Voltage (VDC) | Size Code | Number of Leads per Side | Packaging |
| Dual In-Line, Metallized Polyester | 10 15 | First two digits indicate the two most significant digits of the capacitance value in picofarads. The third digit is the number of following zeros. | J = \pm 5 K = \pm 10% Other tolerances on request | 50 100 250 400 630 | See Dimension Table | P3 = 3 leads P4 = 4 leads P5 = 5 leads P7 = 7 leads P8 = 8 leads | See Ordering Options Table |

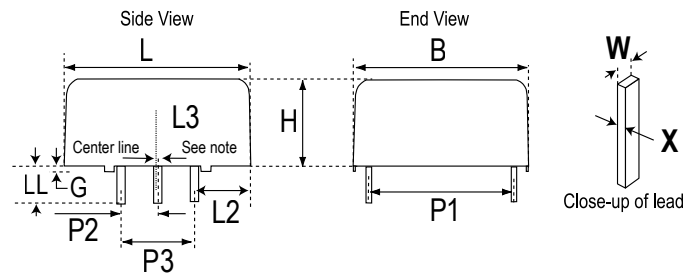
New KEMET Part Number System

| F | 68 | 3 | A | A | 333 | K | 050 | T |
|-----------------|------------------------------------|---|-------------------|-----------------------|---|---|--|----------------------------|
| Capacitor Class | Series | Number of Leads per Side | Lead Spacing (mm) | Size Code | Capacitance Code (pF) | Capacitance Tolerance | Rated Voltage (VDC) | Packaging |
| F = Film | Dual In-Line, Metallized Polyester | 3 = 3 leads 4 = 4 leads 5 = 5 leads 7 = 7 leads 8 = 8 leads | A = 10 B = 15 | A = Standard box size | First two digits indicate the two most significant digits of the capacitance value in picofarads. The third digit is the number of following zeros. | J = \pm 5 K = \pm 10% Other tolerances on request | 050 = 50 100 = 100 250 = 250 400 = 400 630 = 630 | See Ordering Options Table |

Ordering Options Table

| Packaging Type | KEMET Packaging Code | Legacy Packaging Code |
|---|----------------------|-----------------------|
| Standard Packaging Options | | |
| Bulk (Tube) | T | TUBE |
| Case Size A53 Tape & Reel (Standard Reel) | VV687 | TR32 |

Dimensions – Millimeters



| Legacy Size Code | Leads per Side | P1 | P2 | P3 ⁽¹⁾ | B | H | L | H1 | L2 | L3 ⁽²⁾ | W | X | Y | Z | LL |
|------------------|----------------|--------|--------|-------------------|--------|--------|--------|--------|--------|-------------------|---------|---------|---------|--------|---------|
| | | +/-0.2 | +/-0.2 | +/-0.2 | +/-0.2 | +/-0.2 | +/-0.2 | +/-0.2 | +/-0.4 | +/-0.2 | Maximum | +/-0.05 | +/-0.05 | +/-0.2 | Nominal |
| A52 | 3 | 10.0 | 2.54 | 5.08 | 12.2 | 6.05 | 11.0 | 7.75 | 2.96 | 0.2 | 0.5 | 0.35 | 1.5 | 0.25 | 1.7 |
| A53 | 3 | 10.0 | 2.54 | 5.08 | 12.7 | 9.0 | 14.0 | 10.5 | 4.46 | 0.2 | 0.5 | 0.35 | 1.5 | 0 | 1.5 |
| A54 | 3 | 10.0 | 2.54 | 5.08 | 12.2 | 6.05 | 13.5 | 7.75 | 4.21 | 0.2 | 0.5 | 0.35 | 1.5 | 0.25 | 1.7 |
| A55 | 3 | 10.0 | 2.54 | 5.08 | 12.2 | 6.05 | 16.5 | 7.75 | 5.71 | 0.2 | 0.5 | 0.35 | 1.5 | 0.25 | 1.7 |
| B53 | 3 | 15.0 | 2.54 | 5.08 | 16.5 | 6.05 | 11.0 | 7.75 | 2.96 | 0.2 | 0.5 | 0.35 | 1.5 | 0.6 | 1.7 |
| B55 | 3 | 15.0 | 2.54 | 5.08 | 16.5 | 6.05 | 12.2 | 7.75 | 3.56 | 0.2 | 0.5 | 0.35 | 1.5 | 0.6 | 1.7 |
| | | | | | | | | | | | | | | | |
| A53 | 4 | 10.0 | 2.54 | 7.62 | 12.7 | 9.0 | 14.0 | 10.5 | 3.19 | 0.2 | 0.5 | 0.35 | 1.5 | 0 | 1.5 |
| A54 | 4 | 10.0 | 2.54 | 7.62 | 12.2 | 6.05 | 13.5 | 7.75 | 2.94 | 0.2 | 0.5 | 0.35 | 1.5 | 0.25 | 1.7 |
| A55 | 4 | 10.0 | 2.54 | 7.62 | 12.2 | 6.05 | 16.5 | 7.75 | 4.44 | 0.2 | 0.5 | 0.35 | 1.5 | 0.25 | 1.7 |
| B55 | 4 | 15.0 | 2.54 | 7.62 | 16.5 | 6.05 | 12.2 | 7.75 | 2.29 | 0.2 | 0.5 | 0.35 | 1.5 | 0.6 | 1.7 |
| | | | | | | | | | | | | | | | |
| A55 | 5 | 10.0 | 2.54 | 10.16 | 12.2 | 6.05 | 16.5 | 7.75 | 3.17 | 0.2 | 0.5 | 0.35 | 1.5 | 0.25 | 1.7 |
| | | | | | | | | | | | | | | | |
| A57 | 7 | 10.0 | 2.54 | 15.24 | 12.7 | 9.0 | 23.0 | 10.7 | 3.88 | 0.2 | 0.5 | 0.35 | 1.5 | 0 | 1.7 |
| A58 | 7 | 10.0 | 2.54 | 15.24 | 12.7 | 11.0 | 23.0 | 12.5 | 3.88 | 0.2 | 0.5 | 0.35 | 1.5 | 0 | 1.5 |
| | | | | | | | | | | | | | | | |
| A57 | 8 | 10.0 | 2.54 | 17.78 | 12.7 | 9.0 | 23.0 | 10.7 | 2.61 | 0.2 | 0.5 | 0.35 | 1.5 | 0 | 1.7 |
| A58 | 8 | 10.0 | 2.54 | 17.78 | 12.7 | 11.0 | 23.0 | 12.5 | 2.61 | 0.2 | 0.5 | 0.35 | 1.5 | 0 | 1.5 |

Drawing shows MDK with three leads per side. Similar dimensional requirements apply to the 4, 5, 7, and 8 leads per side configurations.

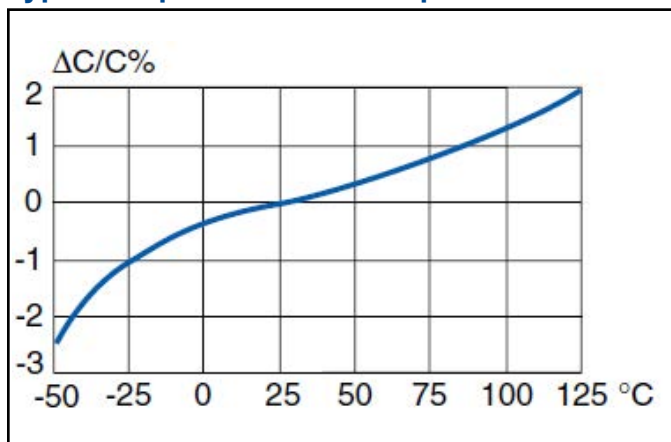
(1) P3 represents the cumulative tolerance of all leads.

(2) L3 represents the extent to which the center line of the leads misaligns with the center line of the body. Dimension shown is the maximum such misalignment allowed.

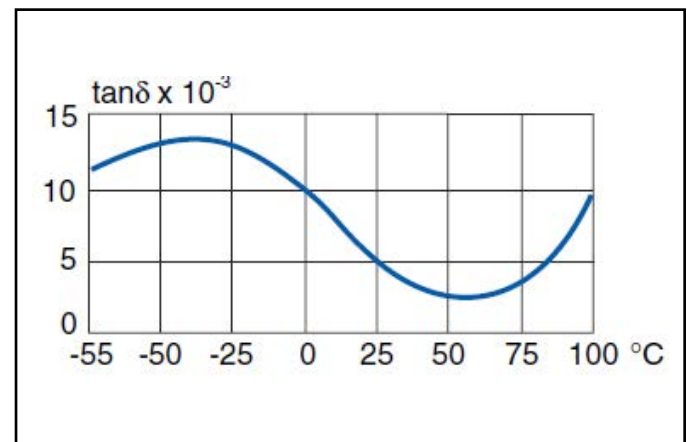
Performance Characteristics

| | | | | | |
|-------------------------------------|---|---------------------------|-----------------------------|-------------------------------------|----------------------|
| Rated Voltage (VDC) | 50 | 100 | 250 | 400 | 630 |
| Rated Voltage (VAC) | 30 | 63 | 160 | 200 | 220 |
| Capacitance Range (μF) | 0.033 – 15 | 0.033 – 10 | 0.033 – 1.5 | 0.033 – 0.47 | 0.033 – 0.18 |
| Capacitance Tolerance | $\pm 5\%$, $\pm 10\%$, other tolerances on request | | | | |
| Category Temperature Range | -55°C to +125°C | | | | |
| Rated Temperature | +85°C | | | | |
| Voltage Derating | The rated voltage is decreased with 1.25%/°C from +85°C | | | | |
| Climatic Category | 55/125/56 | | | | |
| Test Voltage | $1.6 \times V_R$, 60 seconds | | | | |
| Insulation Resistance | Measured at +20°C according to IEC 60384-2 | | | | |
| | Minimum Value Between Terminals | | | | |
| | | $C \leq 0.33 \mu\text{F}$ | | $C > 0.33 \mu\text{F}$ | |
| | $V_R \leq 100$ | 15,000 M Ω | | 5,000 M $\Omega \cdot \mu\text{F}$ | |
| | $V_R > 100$ | 30,000 M Ω | | 10,000 M $\Omega \cdot \mu\text{F}$ | |
| Dissipation Factor | Maximum Values at +23°C | | | | |
| | | $C \leq 0.1 \mu\text{F}$ | $0.1 < C < 3.3 \mu\text{F}$ | $3.3 \leq C \leq 10 \mu\text{F}$ | $C > 10 \mu\text{F}$ |
| | 1 kHz | 0.8% | 0.8% | 0.8% | 0.8% |
| | 10 kHz | 1.5% | 1.5% | 1.5% | 2.0% |
| | 100 kHz | 2.5% | 5.0% | | |
| Self Inductance | Approximately 4 nH | | | | |

Typical Capacitance vs. Temperature at 1 kHz



Typical Dissipation Factor vs. Temperature at 1 kHz



Maximum RMS Voltage V_{rms} (V) vs. Frequency

| Value | Rated Voltage | Case Size | 1 kHz | 10 kHz | 100 kHz | 500 kHz | 1 MHz |
|-------------|---------------|-----------|-------|--------|---------|---------|-------|
| 1.0 μ F | 250 V | A57 | 150.0 | 36.0 | 9.2 | 2.9 | 1.3 |
| 2.2 μ F | 100 V | A52 | 50.0 | 25.0 | 5.0 | 1.2 | 0.6 |
| 3.9 μ F | 100 V | A52 | 50.0 | 18.0 | 4.0 | 1.0 | 0.3 |
| 4.7 μ F | 100 V | A54 | 50.0 | 16.0 | 3.5 | 0.7 | 0.2 |
| 6.8 μ F | 100 V | A57 | 50.0 | 15.5 | 2.2 | 0.5 | 0.2 |
| 10 μ F | 100 V | A58 | 50.0 | 15.0 | 2.0 | 0.4 | 0.2 |

Maximum RMS Current I_{rms} (A) vs. Frequency

| Value | Rated Voltage | Case Size | 1 kHz | 10 kHz | 100 kHz | 500 kHz | 1 MHz |
|-------------|---------------|-----------|-------|--------|---------|---------|-------|
| 1.0 μ F | 250 V | A57 | 1.0 | 2.2 | 5.5 | 9.0 | 10.0 |
| 2.2 μ F | 100 V | A52 | 1.5 | 2.3 | 6.0 | 7.5 | 10.0 |
| 3.9 μ F | 100 V | A52 | 2.0 | 4.0 | 10.0 | 11.0 | 11.5 |
| 4.7 μ F | 100 V | A54 | 2.0 | 4.5 | 10.0 | 12.5 | 12.5 |
| 6.8 μ F | 100 V | A57 | 3.0 | 6.0 | 11.0 | 13.0 | 13.5 |
| 10 μ F | 100 V | A58 | 4.0 | 9.0 | 13.0 | 14.0 | 14.5 |

Environmental Compliance

All KEMET surface mount capacitors are RoHS Compliant.

Table 1 – Ratings & Part Number Reference

| VDC | VAC | Cap Value (µF) | Size Code (New/Legacy) | Dimensions in mm | | | Lead Spacing (p) | ESR 500 kHz (mΩ) | New KEMET Part Number | Legacy Part Number |
|-----|-----|----------------|------------------------|------------------|--------|--------|------------------|------------------|-----------------------|--------------------------|
| | | | | B | H | L | | | | |
| 50 | 30 | 0.033 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 390 | F683AA333(1)050T | MDK10333(1)50A52P3TUBE |
| 50 | 30 | 0.039 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 330 | F683AA393(1)050T | MDK10393(1)50A52P3TUBE |
| 50 | 30 | 0.047 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 270 | F683AA473(1)050T | MDK10473(1)50A52P3TUBE |
| 50 | 30 | 0.056 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 230 | F683AA563(1)050T | MDK10563(1)50A52P3TUBE |
| 50 | 30 | 0.068 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 190 | F683AA683(1)050T | MDK10683(1)50A52P3TUBE |
| 50 | 30 | 0.082 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 160 | F683AA823(1)050T | MDK10823(1)50A52P3TUBE |
| 50 | 30 | 0.10 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 130 | F683AA104(1)050T | MDK10104(1)50A52P3TUBE |
| 50 | 30 | 0.12 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 110 | F683AA124(1)050T | MDK10124(1)50A52P3TUBE |
| 50 | 30 | 0.15 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 85 | F683AA154(1)050T | MDK10154(1)50A52P3TUBE |
| 50 | 30 | 0.18 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 70 | F683AA184(1)050T | MDK10184(1)50A52P3TUBE |
| 50 | 30 | 0.22 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 58 | F683AA224(1)050T | MDK10224(1)50A52P3TUBE |
| 50 | 30 | 0.27 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 47 | F683AA274(1)050T | MDK10274(1)50A52P3TUBE |
| 50 | 30 | 0.33 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 39 | F683AA334(1)050T | MDK10334(1)50A52P3TUBE |
| 50 | 30 | 0.39 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 33 | F683AA394(1)050T | MDK10394(1)50A52P3TUBE |
| 50 | 30 | 0.47 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 30 | F683AA474(1)050T | MDK10474(1)50A52P3TUBE |
| 50 | 30 | 0.56 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 26 | F683AA564(1)050T | MDK10564(1)50A52P3TUBE |
| 50 | 30 | 0.68 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 21 | F683AA684(1)050T | MDK10684(1)50A52P3TUBE |
| 50 | 30 | 0.82 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 18 | F683AA824(1)050T | MDK10824(1)50A52P3TUBE |
| 50 | 30 | 1.0 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 15 | F683AA105(1)050T | MDK10105(1)50A52P3TUBE |
| 50 | 30 | 1.2 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 14 | F683AA125(1)050T | MDK10125(1)50A52P3TUBE |
| 50 | 30 | 1.5 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 13 | F683AA155(1)050T | MDK10155(1)50A52P3TUBE |
| 50 | 30 | 1.8 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 12 | F683AA185(1)050T | MDK10185(1)50A52P3TUBE |
| 50 | 30 | 2.2 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 11 | F683AA225(1)050T | MDK10225(1)50A52P3TUBE |
| 50 | 30 | 2.7 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 10 | F683AA275(1)050T | MDK10275(1)50A52P3TUBE |
| 50 | 30 | 3.3 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 8 | F683AA335(1)050T | MDK10335(1)50A52P3TUBE |
| 50 | 30 | 3.9 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 7 | F683AA395(1)050T | MDK10395(1)50A52P3TUBE |
| 50 | 30 | 4.7 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 6 | F683AA475(1)050T | MDK10475(1)50A52P3TUBE |
| 50 | 30 | 5.6 | AA/A54 | 12.2 | 6.05 | 13.5 | 10 | 5 | F68(2)AA565(1)050T | MDK10565(1)50A54P(2)TUBE |
| 50 | 30 | 6.8 | AA/A55 | 12.2 | 6.05 | 16.5 | 10 | 5 | F68(3)AA685(1)050T | MDK10685(1)50A55P(3)TUBE |
| 50 | 30 | 8.2 | AA/A57 | 12.7 | 9.0 | 23.0 | 10 | 4 | F68(4)AA825(1)050T | MDK10825(1)50A57P(4)TUBE |
| 50 | 30 | 10 | AA/A57 | 12.7 | 9.0 | 23.0 | 10 | 3 | F68(4)AA106(1)050T | MDK10106(1)50A57P(4)TUBE |
| 50 | 30 | 12 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 3 | F68(4)AA126(1)050T | MDK10126(1)50A58P(4)TUBE |
| 50 | 30 | 15 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 3 | F68(4)AA156(1)050T | MDK10156(1)50A58P(4)TUBE |
| 50 | 30 | 0.033 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 390 | F683BA333(1)050T | MDK15333(1)50B53P3TUBE |
| 50 | 30 | 0.039 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 330 | F683BA393(1)050T | MDK15393(1)50B53P3TUBE |
| 50 | 30 | 0.047 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 270 | F683BA473(1)050T | MDK15473(1)50B53P3TUBE |
| 50 | 30 | 0.056 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 230 | F683BA563(1)050T | MDK15563(1)50B53P3TUBE |
| 50 | 30 | 0.068 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 190 | F683BA683(1)050T | MDK15683(1)50B53P3TUBE |
| 50 | 30 | 0.082 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 160 | F683BA823(1)050T | MDK15823(1)50B53P3TUBE |
| 50 | 30 | 0.10 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 130 | F683BA104(1)050T | MDK15104(1)50B53P3TUBE |
| 50 | 30 | 0.12 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 110 | F683BA124(1)050T | MDK15124(1)50B53P3TUBE |
| 50 | 30 | 0.15 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 85 | F683BA154(1)050T | MDK15154(1)50B53P3TUBE |
| 50 | 30 | 0.18 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 70 | F683BA184(1)050T | MDK15184(1)50B53P3TUBE |
| 50 | 30 | 0.22 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 58 | F683BA224(1)050T | MDK15224(1)50B53P3TUBE |
| 50 | 30 | 0.27 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 47 | F683BA274(1)050T | MDK15274(1)50B53P3TUBE |
| 50 | 30 | 0.33 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 39 | F683BA334(1)050T | MDK15334(1)50B53P3TUBE |
| 50 | 30 | 0.39 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 39 | F683BA394(1)050T | MDK15394(1)50B53P3TUBE |
| 50 | 30 | 0.47 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 30 | F683BA474(1)050T | MDK15474(1)50B53P3TUBE |
| 50 | 30 | 0.56 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 26 | F683BA564(1)050T | MDK15564(1)50B53P3TUBE |
| 50 | 30 | 0.68 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 21 | F683BA684(1)050T | MDK15684(1)50B53P3TUBE |
| 50 | 30 | 0.82 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 18 | F683BA824(1)050T | MDK15824(1)50B53P3TUBE |
| 50 | 30 | 1.0 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 15 | F683BA105(1)050T | MDK15105(1)50B53P3TUBE |
| 50 | 30 | 1.2 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 15 | F683BA125(1)050T | MDK15125(1)50B53P3TUBE |
| 50 | 30 | 1.5 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 13 | F683BA155(1)050T | MDK15155(1)50B53P3TUBE |
| 50 | 30 | 1.8 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 13 | F683BA185(1)050T | MDK15185(1)50B53P3TUBE |
| 50 | 30 | 2.2 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 11 | F683BA225(1)050T | MDK15225(1)50B53P3TUBE |
| 50 | 30 | 2.7 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 11 | F683BA275(1)050T | MDK15275(1)50B53P3TUBE |
| 50 | 30 | 3.3 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 8 | F683BA335(1)050T | MDK15335(1)50B53P3TUBE |
| 50 | 30 | 3.9 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 8 | F683BA395(1)050T | MDK15395(1)50B53P3TUBE |
| VDC | VAC | Cap Value (µF) | Size Code (New/Legacy) | B (mm) | H (mm) | L (mm) | Lead Spacing (p) | ESR 500 kHz (mΩ) | New KEMET Part Number | Legacy Part Number |

(1) J = ±5%, K = ±10%, other tolerances on request.

(2) = Number of leads per side, 3 or 4.

(3) = Number of leads per side, 3, 4 or 5.

(4) = Number of leads per side, 7 or 8.

Table 1 – Ratings & Part Number Reference cont'd

| VDC | VAC | Cap Value (µF) | Size Code (New/Legacy) | Dimensions in mm | | | Lead Spacing (p) | ESR 500 kHz (mΩ) | New KEMET Part Number | Legacy Part Number |
|-----|-----|----------------|------------------------|------------------|--------|--------|------------------|------------------|------------------------|---------------------------|
| | | | | B | H | L | | | | |
| 50 | 30 | 4.7 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 6 | F683BA475(1)050T | MDK15475(1)50B53P3TUBE |
| 50 | 30 | 5.6 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 5 | F683BA565(1)050T | MDK15565(1)50B53P3TUBE |
| 50 | 30 | 6.8 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 5 | F683BA685(1)050T | MDK15685(1)50B53P3TUBE |
| 100 | 63 | 0.033 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 390 | F683AA333(1)100T | MDK10333(1)100A52P3TUBE |
| 100 | 63 | 0.039 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 330 | F683AA393(1)100T | MDK10393(1)100A52P3TUBE |
| 100 | 63 | 0.047 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 270 | F683AA473(1)100T | MDK10473(1)100A52P3TUBE |
| 100 | 63 | 0.056 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 230 | F683AA563(1)100T | MDK10563(1)100A52P3TUBE |
| 100 | 63 | 0.068 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 190 | F683AA683(1)100T | MDK10683(1)100A52P3TUBE |
| 100 | 63 | 0.082 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 160 | F683AA823(1)100T | MDK10823(1)100A52P3TUBE |
| 100 | 63 | 0.10 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 130 | F683AA104(1)100T | MDK10104(1)100A52P3TUBE |
| 100 | 63 | 0.12 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 110 | F683AA124(1)100T | MDK10124(1)100A52P3TUBE |
| 100 | 63 | 0.15 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 85 | F683AA154(1)100T | MDK10154(1)100A52P3TUBE |
| 100 | 63 | 0.18 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 70 | F683AA184(1)100T | MDK10184(1)100A52P3TUBE |
| 100 | 63 | 0.22 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 58 | F683AA224(1)100T | MDK10224(1)100A52P3TUBE |
| 100 | 63 | 0.27 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 47 | F683AA274(1)100T | MDK10274(1)100A52P3TUBE |
| 100 | 63 | 0.33 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 39 | F683AA334(1)100T | MDK10334(1)100A52P3TUBE |
| 100 | 63 | 0.39 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 33 | F683AA394(1)100T | MDK10394(1)100A52P3TUBE |
| 100 | 63 | 0.47 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 30 | F683AA474(1)100T | MDK10474(1)100A52P3TUBE |
| 100 | 63 | 0.56 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 26 | F683AA564(1)100T | MDK10564(1)100A52P3TUBE |
| 100 | 63 | 0.68 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 21 | F683AA684(1)100T | MDK10684(1)100A52P3TUBE |
| 100 | 63 | 0.82 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 18 | F683AA824(1)100T | MDK10824(1)100A52P3TUBE |
| 100 | 63 | 1.0 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 15 | F683AA105(1)100T | MDK10105(1)100A52P3TUBE |
| 100 | 63 | 1.2 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 14 | F683AA125(1)100T | MDK10125(1)100A52P3TUBE |
| 100 | 63 | 1.5 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 13 | F683AA155(1)100T | MDK10155(1)100A52P3TUBE |
| 100 | 63 | 1.8 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 12 | F683AA185(1)100T | MDK10185(1)100A52P3TUBE |
| 100 | 63 | 2.2 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 11 | F683AA225(1)100T | MDK10225(1)100A52P3TUBE |
| 100 | 35 | 2.7 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 10 | F683AA275(1)100T | MDK10275(1)100A52P3TUBE |
| 100 | 35 | 3.3 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 8 | F683AA335(1)100T | MDK10335(1)100A52P3TUBE |
| 100 | 35 | 3.9 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 7 | F683AA395(1)100T | MDK10395(1)100A52P3TUBE |
| 100 | 35 | 4.7 | AA/A54 | 12.2 | 6.05 | 13.5 | 10 | 6 | F68(2)AA475(1)100T | MDK10475(1)100A54P(2)TUBE |
| 100 | 35 | 4.7 | AA/A53 | 12.7 | 9.0 | 14.0 | 10 | 6 | F68(2)AA475(1)100VV687 | MDK10475(1)100A53P(2)TR32 |
| 100 | 35 | 5.6 | AA/A55 | 12.2 | 6.05 | 16.5 | 10 | 5 | F68(3)AA565(1)100T | MDK10565(1)100A55P(3)TUBE |
| 100 | 63 | 6.8 | AA/A57 | 12.7 | 9.0 | 23.0 | 10 | 5 | F68(4)AA685(1)100T | MDK10685(1)100A57P(4)TUBE |
| 100 | 63 | 8.2 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 4 | F68(4)AA825(1)100T | MDK10825(1)100A58P(4)TUBE |
| 100 | 63 | 10 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 3 | F68(4)AA106(1)100T | MDK10106(1)100A58P(4)TUBE |
| 100 | 63 | 0.033 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 390 | F683BA333(1)100T | MDK15333(1)100B53P3TUBE |
| 100 | 63 | 0.039 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 330 | F683BA393(1)100T | MDK15393(1)100B53P3TUBE |
| 100 | 63 | 0.047 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 270 | F683BA473(1)100T | MDK15473(1)100B53P3TUBE |
| 100 | 63 | 0.056 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 230 | F683BA563(1)100T | MDK15563(1)100B53P3TUBE |
| 100 | 63 | 0.068 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 190 | F683BA683(1)100T | MDK15683(1)100B53P3TUBE |
| 100 | 63 | 0.082 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 160 | F683BA823(1)100T | MDK15823(1)100B53P3TUBE |
| 100 | 63 | 0.10 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 130 | F683BA104(1)100T | MDK15104(1)100B53P3TUBE |
| 100 | 63 | 0.12 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 110 | F683BA124(1)100T | MDK15124(1)100B53P3TUBE |
| 100 | 63 | 0.15 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 85 | F683BA154(1)100T | MDK15154(1)100B53P3TUBE |
| 100 | 63 | 0.18 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 70 | F683BA184(1)100T | MDK15184(1)100B53P3TUBE |
| 100 | 63 | 0.22 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 58 | F683BA224(1)100T | MDK15224(1)100B53P3TUBE |
| 100 | 63 | 0.27 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 47 | F683BA274(1)100T | MDK15274(1)100B53P3TUBE |
| 100 | 63 | 0.33 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 39 | F683BA334(1)100T | MDK15334(1)100B53P3TUBE |
| 100 | 63 | 0.39 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 39 | F683BA394(1)100T | MDK15394(1)100B53P3TUBE |
| 100 | 63 | 0.47 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 30 | F683BA474(1)100T | MDK15474(1)100B53P3TUBE |
| 100 | 63 | 0.56 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 26 | F683BA564(1)100T | MDK15564(1)100B53P3TUBE |
| 100 | 63 | 0.68 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 21 | F683BA684(1)100T | MDK15684(1)100B53P3TUBE |
| 100 | 63 | 0.82 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 18 | F683BA824(1)100T | MDK15824(1)100B53P3TUBE |
| 100 | 63 | 1.0 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 15 | F683BA105(1)100T | MDK15105(1)100B53P3TUBE |
| 100 | 63 | 1.2 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 15 | F683BA125(1)100T | MDK15125(1)100B53P3TUBE |
| 100 | 63 | 1.5 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 13 | F683BA155(1)100T | MDK15155(1)100B53P3TUBE |
| 100 | 63 | 1.8 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 13 | F683BA185(1)100T | MDK15185(1)100B53P3TUBE |
| 100 | 63 | 2.2 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 11 | F683BA225(1)100T | MDK15225(1)100B53P3TUBE |
| 100 | 63 | 2.7 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 11 | F683BA275(1)100T | MDK15275(1)100B53P3TUBE |
| VDC | VAC | Cap Value (µF) | Size Code (New/Legacy) | B (mm) | H (mm) | L (mm) | Lead Spacing (p) | ESR 500 kHz (mΩ) | New KEMET Part Number | Legacy Part Number |

(1) J = ±5%, K = ±10%, other tolerances on request.
 (2) = Number of leads per side, 3 or 4.

(3) = Number of leads per side, 3, 4 or 5.
 (4) = Number of leads per side, 7 or 8.

Table 1 – Ratings & Part Number Reference cont'd

| VDC | VAC | Cap Value (µF) | Size Code (New/Legacy) | Dimensions in mm | | | Lead Spacing (p) | ESR 500 kHz (mΩ) | New KEMET Part Number | Legacy Part Number |
|-----|-----|----------------|------------------------|------------------|------|------|------------------|------------------|-----------------------|---------------------------|
| | | | | B | H | L | | | | |
| 100 | 63 | 3.3 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 8 | F683BA335(1)100T | MDK15335(1)100B53P3TUBE |
| 100 | 63 | 3.9 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 8 | F683BA395(1)100T | MDK15395(1)100B53P3TUBE |
| 100 | 35 | 4.7 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 6 | F683BA475(1)100T | MDK15475(1)100B53P3TUBE |
| 100 | 35 | 5.6 | BA/B55 | 16.5 | 6.05 | 12.2 | 15 | 5 | F68(2)BA565(1)100T | MDK15565(1)100B55P(2)TUBE |
| 250 | 160 | 0.033 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 390 | F683AA333(1)250T | MDK10333(1)250A52P3TUBE |
| 250 | 160 | 0.039 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 330 | F683AA393(1)250T | MDK10393(1)250A52P3TUBE |
| 250 | 160 | 0.047 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 270 | F683AA473(1)250T | MDK10473(1)250A52P3TUBE |
| 250 | 160 | 0.056 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 230 | F683AA563(1)250T | MDK10563(1)250A52P3TUBE |
| 250 | 160 | 0.068 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 190 | F683AA683(1)250T | MDK10683(1)250A52P3TUBE |
| 250 | 160 | 0.082 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 160 | F683AA823(1)250T | MDK10823(1)250A52P3TUBE |
| 250 | 160 | 0.10 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 130 | F683AA104(1)250T | MDK10104(1)250A52P3TUBE |
| 250 | 160 | 0.12 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 110 | F683AA124(1)250T | MDK10124(1)250A52P3TUBE |
| 250 | 160 | 0.15 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 85 | F683AA154(1)250T | MDK10154(1)250A52P3TUBE |
| 250 | 160 | 0.18 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 70 | F683AA184(1)250T | MDK10184(1)250A52P3TUBE |
| 250 | 160 | 0.22 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 58 | F683AA224(1)250T | MDK10224(1)250A52P3TUBE |
| 250 | 160 | 0.27 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 47 | F683AA274(1)250T | MDK10274(1)250A52P3TUBE |
| 250 | 160 | 0.33 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 39 | F683AA334(1)250T | MDK10334(1)250A52P3TUBE |
| 250 | 160 | 0.39 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 33 | F683AA394(1)250T | MDK10394(1)250A52P3TUBE |
| 250 | 160 | 0.47 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 30 | F683AA474(1)250T | MDK10474(1)250A52P3TUBE |
| 250 | 160 | 0.56 | AA/A54 | 12.2 | 6.05 | 13.5 | 10 | 26 | F68(2)AA564(1)250T | MDK10564(1)250A54P(2)TUBE |
| 250 | 160 | 0.68 | AA/A55 | 12.2 | 6.05 | 16.5 | 10 | 21 | F68(3)AA684(1)250T | MDK10684(1)250A55P(3)TUBE |
| 250 | 160 | 0.82 | AA/A57 | 12.7 | 9.0 | 23.0 | 10 | 18 | F68(4)AA824(1)250T | MDK10824(1)250A57P(4)TUBE |
| 250 | 160 | 1.0 | AA/A57 | 12.7 | 9.0 | 23.0 | 10 | 15 | F68(4)AA105(1)250T | MDK10105(1)250A57P(4)TUBE |
| 250 | 160 | 1.2 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 14 | F68(4)AA125(1)250T | MDK10125(1)250A58P(4)TUBE |
| 250 | 160 | 1.5 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 13 | F68(4)AA155(1)250T | MDK10155(1)250A58P(4)TUBE |
| 250 | 160 | 0.033 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 390 | F683BA333(1)250T | MDK15333(1)250B53P3TUBE |
| 250 | 160 | 0.039 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 330 | F683BA393(1)250T | MDK15393(1)250B53P3TUBE |
| 250 | 160 | 0.047 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 270 | F683BA473(1)250T | MDK15473(1)250B53P3TUBE |
| 250 | 160 | 0.056 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 230 | F683BA563(1)250T | MDK15563(1)250B53P3TUBE |
| 250 | 160 | 0.068 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 190 | F683BA683(1)250T | MDK15683(1)250B53P3TUBE |
| 250 | 160 | 0.082 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 160 | F683BA823(1)250T | MDK15823(1)250B53P3TUBE |
| 250 | 160 | 0.10 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 130 | F683BA104(1)250T | MDK15104(1)250B53P3TUBE |
| 250 | 160 | 0.12 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 110 | F683BA124(1)250T | MDK15124(1)250B53P3TUBE |
| 250 | 160 | 0.15 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 85 | F683BA154(1)250T | MDK15154(1)250B53P3TUBE |
| 250 | 160 | 0.18 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 70 | F683BA184(1)250T | MDK15184(1)250B53P3TUBE |
| 250 | 160 | 0.22 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 58 | F683BA224(1)250T | MDK15224(1)250B53P3TUBE |
| 250 | 160 | 0.27 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 47 | F683BA274(1)250T | MDK15274(1)250B53P3TUBE |
| 250 | 160 | 0.33 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 39 | F683BA334(1)250T | MDK15334(1)250B53P3TUBE |
| 250 | 160 | 0.39 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 39 | F683BA394(1)250T | MDK15394(1)250B53P3TUBE |
| 250 | 160 | 0.47 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 30 | F683BA474(1)250T | MDK15474(1)250B53P3TUBE |
| 250 | 160 | 0.56 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 26 | F683BA564(1)250T | MDK15564(1)250B53P3TUBE |
| 250 | 160 | 0.68 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 21 | F683BA684(1)250T | MDK15684(1)250B53P3TUBE |
| 400 | 200 | 0.033 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 390 | F683AA333(1)400T | MDK10333(1)400A52P3TUBE |
| 400 | 200 | 0.039 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 330 | F683AA393(1)400T | MDK10393(1)400A52P3TUBE |
| 400 | 200 | 0.047 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 270 | F683AA473(1)400T | MDK10473(1)400A52P3TUBE |
| 400 | 200 | 0.056 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 230 | F683AA563(1)400T | MDK10563(1)400A52P3TUBE |
| 400 | 200 | 0.068 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 190 | F683AA683(1)400T | MDK10683(1)400A52P3TUBE |
| 400 | 200 | 0.082 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 160 | F683AA823(1)400T | MDK10823(1)400A52P3TUBE |
| 400 | 200 | 0.10 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 130 | F683AA104(1)400T | MDK10104(1)400A52P3TUBE |
| 400 | 200 | 0.12 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 110 | F683AA124(1)400T | MDK10124(1)400A52P3TUBE |
| 400 | 200 | 0.15 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 85 | F683AA154(1)400T | MDK10154(1)400A52P3TUBE |
| 400 | 200 | 0.18 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 70 | F683AA184(1)400T | MDK10184(1)400A52P3TUBE |
| 400 | 200 | 0.22 | AA/A57 | 12.7 | 9.0 | 23.0 | 10 | 58 | F68(4)AA224(1)400T | MDK10224(1)400A57P(4)TUBE |
| 400 | 200 | 0.27 | AA/A57 | 12.7 | 9.0 | 23.0 | 10 | 47 | F68(4)AA274(1)400T | MDK10274(1)400A57P(4)TUBE |
| 400 | 200 | 0.33 | AA/A57 | 12.7 | 9.0 | 23.0 | 10 | 39 | F68(4)AA334(1)400T | MDK10334(1)400A57P(4)TUBE |
| 400 | 200 | 0.39 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 33 | F68(4)AA394(1)400T | MDK10394(1)400A58P(4)TUBE |
| 400 | 200 | 0.47 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 30 | F68(4)AA474(1)400T | MDK10474(1)400A58P(4)TUBE |
| 400 | 200 | 0.033 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 390 | F683BA333(1)400T | MDK15333(1)400B53P3TUBE |
| 400 | 200 | 0.039 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 330 | F683BA393(1)400T | MDK15393(1)400B53P3TUBE |

(1) J = ±5%, K = ±10%, other tolerances on request.
 (2) = Number of Leads per side, 3 or 4.

(3) = Number of Leads per side, 3, 4 or 5.
 (4) = Number of Leads per side, 7 or 8.

Table 1 – Ratings & Part Number Reference cont'd

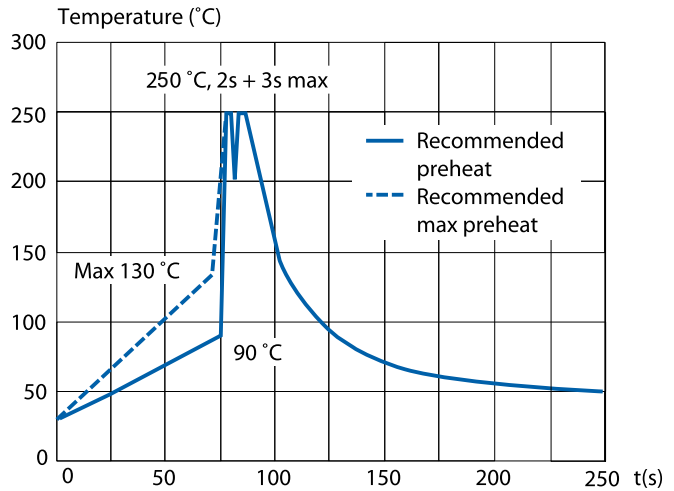
| VDC | VAC | Cap Value (µF) | Size Code (New/Legacy) | Dimensions in mm | | | Lead Spacing (p) | ESR 500 kHz (mΩ) | New KEMET Part Number | Legacy Part Number |
|-----|-----|----------------|------------------------|------------------|--------|--------|------------------|------------------|-----------------------|---------------------------|
| | | | | B | H | L | | | | |
| 400 | 200 | 0.047 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 270 | F683BA473(1)400T | MDK15473(1)400B53P3TUBE |
| 400 | 200 | 0.056 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 230 | F683BA563(1)400T | MDK15563(1)400B53P3TUBE |
| 400 | 200 | 0.068 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 190 | F683BA683(1)400T | MDK15683(1)400B53P3TUBE |
| 400 | 200 | 0.082 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 160 | F683BA823(1)400T | MDK15823(1)400B53P3TUBE |
| 400 | 200 | 0.10 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 130 | F683BA104(1)400T | MDK15104(1)400B53P3TUBE |
| 400 | 200 | 0.12 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 110 | F683BA124(1)400T | MDK15124(1)400B53P3TUBE |
| 400 | 200 | 0.15 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 85 | F683BA154(1)400T | MDK15154(1)400B53P3TUBE |
| 400 | 200 | 0.18 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 70 | F683BA184(1)400T | MDK15184(1)400B53P3TUBE |
| 400 | 200 | 0.22 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 58 | F683BA224(1)400T | MDK15224(1)400B53P3TUBE |
| 400 | 200 | 0.27 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 47 | F683BA274(1)400T | MDK15274(1)400B53P3TUBE |
| 400 | 200 | 0.33 | BA/B55 | 16.5 | 6.05 | 12.2 | 15 | 39 | F68(2)BA334(1)400T | MDK15334(1)400B55P(2)TUBE |
| 630 | 220 | 0.033 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 390 | F683AA333(1)630T | MDK10333(1)630A52P3TUBE |
| 630 | 220 | 0.039 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 330 | F683AA393(1)630T | MDK10393(1)630A52P3TUBE |
| 630 | 220 | 0.047 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 270 | F683AA473(1)630T | MDK10473(1)630A52P3TUBE |
| 630 | 220 | 0.056 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 230 | F683AA563(1)630T | MDK10563(1)630A52P3TUBE |
| 630 | 220 | 0.068 | AA/A54 | 12.2 | 6.05 | 13.5 | 10 | 190 | F68(2)AA683(1)630T | MDK10683(1)630A54P(2)TUBE |
| 630 | 220 | 0.082 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 160 | F68(4)AA823(1)630T | MDK10823(1)630A58P(4)TUBE |
| 630 | 220 | 0.10 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 130 | F68(4)AA104(1)630T | MDK10104(1)630A58P(4)TUBE |
| 630 | 220 | 0.12 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 110 | F68(4)AA124(1)630T | MDK10124(1)630A58P(4)TUBE |
| 630 | 220 | 0.15 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 85 | F68(4)AA154(1)630T | MDK10154(1)630A58P(4)TUBE |
| 630 | 220 | 0.18 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 70 | F68(4)AA184(1)630T | MDK10184(1)630A58P(4)TUBE |
| 630 | 220 | 0.033 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 390 | F683BA333(1)630T | MDK15333(1)630B53P3TUBE |
| 630 | 220 | 0.039 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 330 | F683BA393(1)630T | MDK15393(1)630B53P3TUBE |
| 630 | 220 | 0.047 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 270 | F683BA473(1)630T | MDK15473(1)630B53P3TUBE |
| 630 | 220 | 0.056 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 230 | F683BA563(1)630T | MDK15563(1)630B53P3TUBE |
| 630 | 220 | 0.068 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 190 | F683BA683(1)630T | MDK15683(1)630B53P3TUBE |
| 630 | 220 | 0.082 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 160 | F683BA823(1)630T | MDK15823(1)630B53P3TUBE |
| 630 | 220 | 0.10 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 130 | F683BA104(1)630T | MDK15104(1)630B53P3TUBE |
| VDC | VAC | Cap Value (µF) | Size Code (New/Legacy) | B (mm) | H (mm) | L (mm) | Lead Spacing (p) | ESR 500 kHz (mΩ) | New KEMET Part Number | Legacy Part Number |

(1) J = ±5%, K = ±10%, other tolerances on request.
 (2) = Number of leads per side, 3 or 4.

(3) = Number of leads per side, 3, 4 or 5.
 (4) = Number of leads per side, 7 or 8.

Soldering Process

Wave soldering: The recommended preheating temperature is 90°C (130°C maximum). The peak temperature 250°C may be applied for 2 – 5 seconds maximum. KEMET recommends wave soldering for parts with up to 2 mm height.



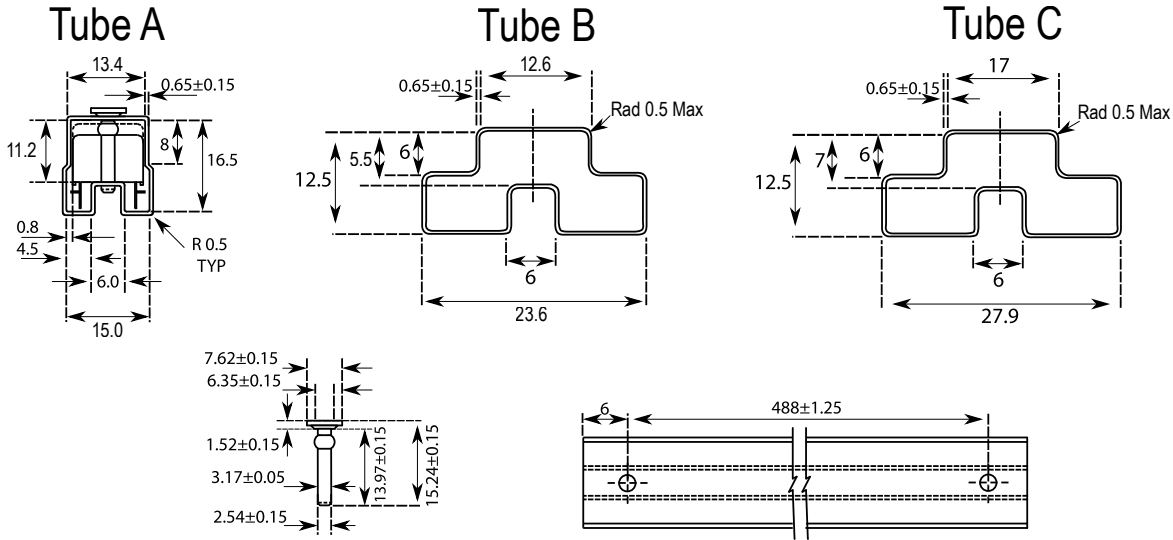
Marking

- KEMET
- Capacitance
- Capacitance tolerance code
- Rated voltage
- Capacitor family code MDK

Packaging Quantities

| Size Code | Lead Spacing | Base (mm) | Height (mm) | Length (mm) | Bulk | Reel |
|-----------|--------------|-----------|-------------|-------------|------|------|
| A52 | 10.0 | 12.2 | 6.05 | 11.0 | 43 | 200 |
| A53 | | 12.7 | 9.0 | 14.0 | 34 | |
| A54 | | 12.2 | 6.05 | 13.5 | 35 | |
| A55 | | 12.2 | 6.05 | 16.5 | 28 | |
| A57 | | 12.7 | 9.0 | 23.0 | 21 | |
| A58 | | 12.7 | 11.0 | 23.0 | 21 | |
| B53 | 15.0 | 16.5 | 6.05 | 11.0 | 43 | |
| B55 | | 16.5 | 6.05 | 12.2 | 39 | |

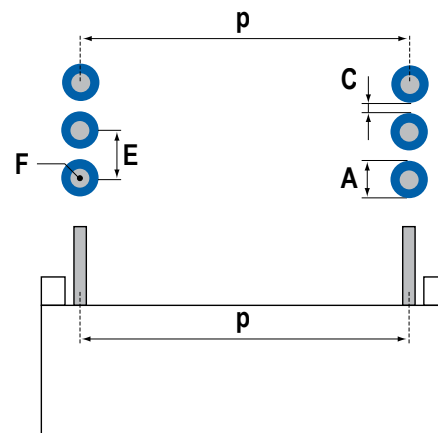
Tube Packaging



| Size Code | Dimensions in mm | Tube |
|-----------|---------------------------|--------|
| A52 | 10.0 – 12.2 x 6.05 x 11.0 | Tube B |
| A53 | 10.0 – 12.7 x 9.0 x 14.0 | Tube A |
| A54 | 10.0 – 12.2 x 6.05 x 13.5 | Tube B |
| A55 | 10.0 – 12.2 x 6.05 x 16.5 | Tube B |
| A57 | 10.0 – 12.7 x 9.0 x 23.0 | Tube A |
| A58 | 10.0 – 12.7 x 11.0 x 23.0 | Tube A |
| B53 | 15.0 – 16.5 x 6.05 x 11.0 | Tube C |
| B55 | 15.0 – 16.5 x 6.05 x 12.2 | Tube C |

Landing

| Size | Dimensions in mm | | | | |
|------|------------------|---|------|------|-----|
| | p | A | C | E | F |
| A52 | 10 | 2 | 0.54 | 2.54 | 0.7 |
| A53 | 10 | 2 | 0.54 | 2.54 | 0.7 |
| A54 | 10 | 2 | 0.54 | 2.54 | 0.7 |
| A55 | 10 | 2 | 0.54 | 2.54 | 0.7 |
| A57 | 10 | 2 | 0.54 | 2.54 | 0.7 |
| A58 | 10 | 2 | 0.54 | 2.54 | 0.7 |
| B53 | 15 | 2 | 0.54 | 2.54 | 0.7 |
| B55 | 15 | 2 | 0.54 | 2.54 | 0.7 |



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