

Overview

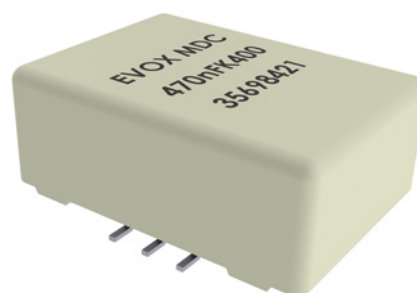
Dual in-line (DIL) metallized polyester (PET) film capacitor for surface mounting is encapsulated in a self-extinguishing material, meeting the requirements of UL 94 V-0.

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 $+125^{\circ}\text{C}$



Customer Part Number

| MDC | 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 |

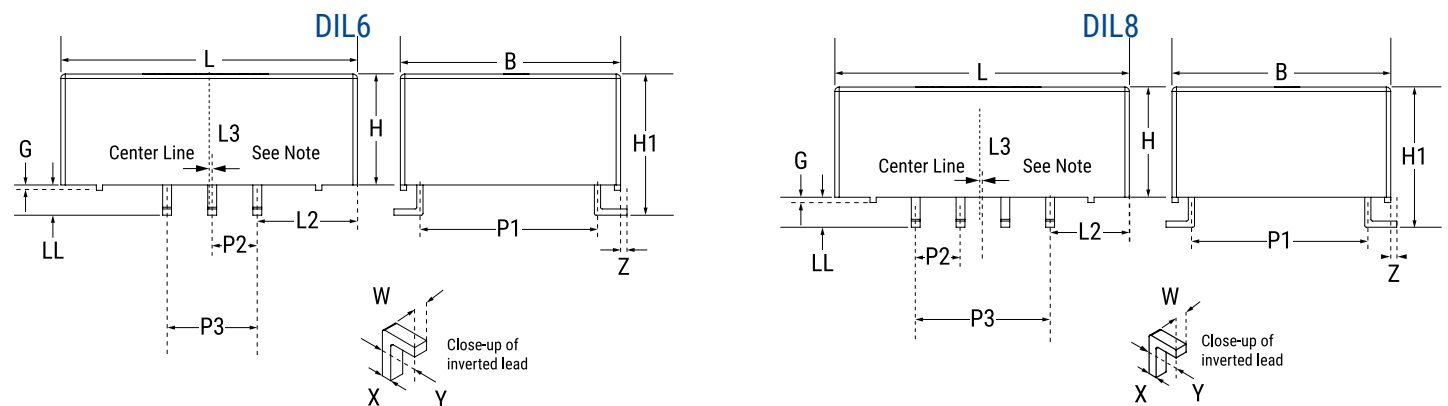
KEMET Internal Part Number

| F | 15 | 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

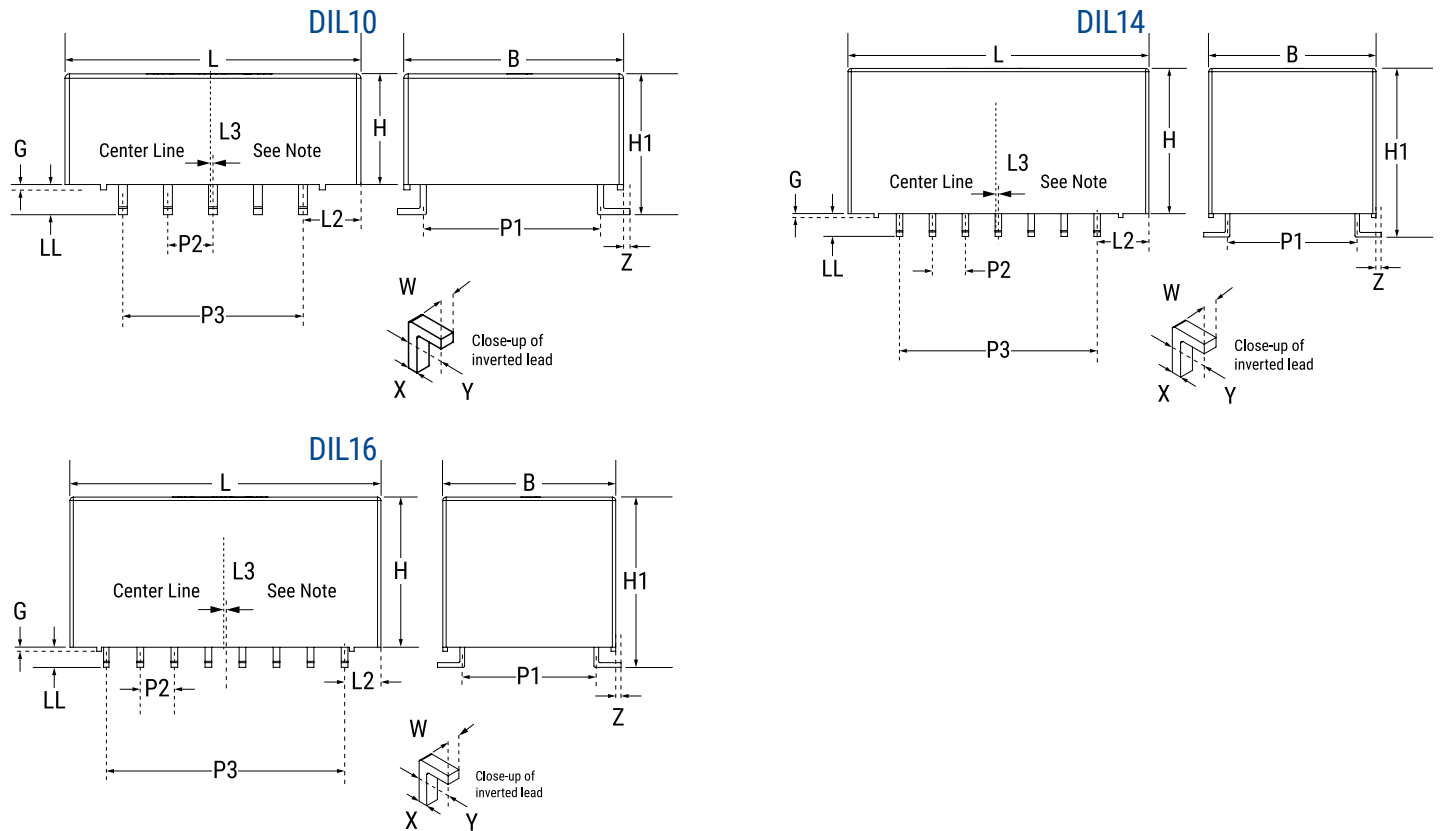


| Legacy Size Code | Leads per Side | P1 | P2 | P3 ⁽¹⁾ | B | H | L | H1 | L2 | L3 ⁽²⁾ | W | X | Y | Z | LL | G |
|------------------|----------------|------|------|-------------------|------|------|-------|------|------|-------------------|---------|-------|-------|------|---------|------|
| | | ±0.2 | ±0.2 | ±0.2 | ±0.2 | ±0.2 | ±0.2 | ±0.2 | ±0.4 | ±0.2 | Maximum | ±0.05 | ±0.05 | ±0.2 | Nominal | ±0.2 |
| 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 | 0.3 |
| A53 | 3 | 10.0 | 2.54 | 5.08 | 12.7 | 9.00 | 14.0 | 10.5 | 4.46 | 0.2 | 0.5 | 0.35 | 1.5 | 0 | 1.5 | 0.3 |
| 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 | 0.3 |
| 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 | 0.3 |
| 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 | 0.3 |
| 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 | 0.3 |
| | | | | | | | | | | | | | | | | |
| A53 | 4 | 10.0 | 2.54 | 7.62 | 12.7 | 9.00 | 14.0 | 10.5 | 3.19 | 0.2 | 0.5 | 0.35 | 1.5 | 0 | 1.5 | 0.3 |
| 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 | 0.3 |
| 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 | 0.3 |
| 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 | 0.3 |
| | | | | | | | | | | | | | | | | |
| 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 | 0.3 |
| | | | | | | | | | | | | | | | | |
| 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 | 0.3 |
| | | | | | | | | | | | | | | | | |
| A58 | 8 | 10.0 | 2.54 | 17.78 | 12.7 | 11.0 | 23.00 | 12.5 | 2.61 | 0.2 | 0.5 | 0.35 | 1.5 | 0 | 1.5 | 0.3 |

(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.

Dimensions – Millimeters cont.



| Legacy Size Code | Leads per Side | P1 | P2 | P3 ⁽¹⁾ | B | H | L | H1 | L2 | L3 ⁽²⁾ | W | X | Y | Z | LL | G |
|------------------|----------------|------|------|-------------------|------|------|-------|------|------|-------------------|---------|-------|-------|------|---------|------|
| | | ±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 | ±0.2 |
| 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 | 0.3 |
| A53 | 3 | 10.0 | 2.54 | 5.08 | 12.7 | 9.00 | 14.0 | 10.5 | 4.46 | 0.2 | 0.5 | 0.35 | 1.5 | 0 | 1.5 | 0.3 |
| 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 | 0.3 |
| 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 | 0.3 |
| 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 | 0.3 |
| 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 | 0.3 |
| | | | | | | | | | | | | | | | | |
| A53 | 4 | 10.0 | 2.54 | 7.62 | 12.7 | 9.00 | 14.0 | 10.5 | 3.19 | 0.2 | 0.5 | 0.35 | 1.5 | 0 | 1.5 | 0.3 |
| 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 | 0.3 |
| 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 | 0.3 |
| 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 | 0.3 |
| | | | | | | | | | | | | | | | | |
| 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 | 0.3 |
| | | | | | | | | | | | | | | | | |
| 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 | 0.3 |
| | | | | | | | | | | | | | | | | |
| A58 | 8 | 10.0 | 2.54 | 17.78 | 12.7 | 11.0 | 23.00 | 12.5 | 2.61 | 0.2 | 0.5 | 0.35 | 1.5 | 0 | 1.5 | 0.3 |

(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

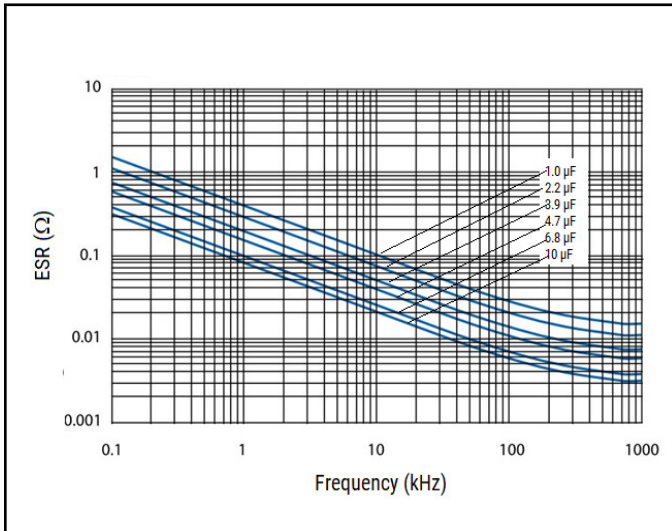
| | | | | | |
|-------------------------------------|--|---------------------------|-----------------------------|-------------------------------------|----------------------|
| Rated Voltage (VDC) | 50 | 100 | 250 | 400 | 630 |
| Rated Voltage (VAC) | 30 | 63 | 160 | 200 | 220 |
| Capacitance Range (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 should be decreased by 1.25%/°C from +85°C to +125°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 | | | | |

Environmental Compliance

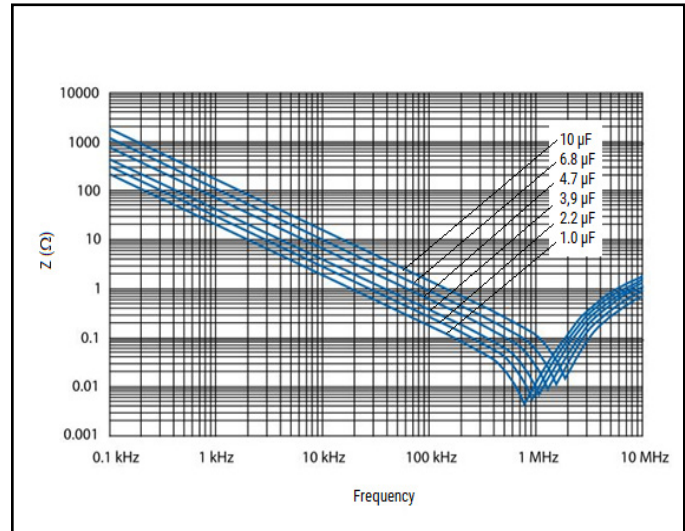
All KEMET surface mount capacitors are RoHS compliant.



ESR vs. Frequency



Impedance vs. Frequency



Maximum 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 I_{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 | 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 |

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 | F153AA333(1)050T | MDC10333(1)50A52P3TUBE |
| 50 | 30 | 0.039 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 330 | F153AA393(1)050T | MDC10393(1)50A52P3TUBE |
| 50 | 30 | 0.047 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 270 | F153AA473(1)050T | MDC10473(1)50A52P3TUBE |
| 50 | 30 | 0.056 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 230 | F153AA563(1)050T | MDC10563(1)50A52P3TUBE |
| 50 | 30 | 0.068 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 190 | F153AA683(1)050T | MDC10683(1)50A52P3TUBE |
| 50 | 30 | 0.082 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 160 | F153AA823(1)050T | MDC10823(1)50A52P3TUBE |
| 50 | 30 | 0.10 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 130 | F153AA104(1)050T | MDC10104(1)50A52P3TUBE |
| 50 | 30 | 0.12 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 110 | F153AA124(1)050T | MDC10124(1)50A52P3TUBE |
| 50 | 30 | 0.15 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 85 | F153AA154(1)050T | MDC10154(1)50A52P3TUBE |
| 50 | 30 | 0.18 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 70 | F153AA184(1)050T | MDC10184(1)50A52P3TUBE |
| 50 | 30 | 0.22 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 58 | F153AA224(1)050T | MDC10224(1)50A52P3TUBE |
| 50 | 30 | 0.27 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 47 | F153AA274(1)050T | MDC10274(1)50A52P3TUBE |
| 50 | 30 | 0.33 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 39 | F153AA334(1)050T | MDC10334(1)50A52P3TUBE |
| 50 | 30 | 0.39 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 33 | F153AA394(1)050T | MDC10394(1)50A52P3TUBE |
| 50 | 30 | 0.47 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 30 | F153AA474(1)050T | MDC10474(1)50A52P3TUBE |
| 50 | 30 | 0.56 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 26 | F153AA564(1)050T | MDC10564(1)50A52P3TUBE |
| 50 | 30 | 0.68 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 21 | F153AA684(1)050T | MDC10684(1)50A52P3TUBE |
| 50 | 30 | 0.82 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 18 | F153AA824(1)050T | MDC10824(1)50A52P3TUBE |
| 50 | 30 | 1.0 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 15 | F153AA105(1)050T | MDC10105(1)50A52P3TUBE |
| 50 | 30 | 1.2 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 14 | F153AA125(1)050T | MDC10125(1)50A52P3TUBE |
| 50 | 30 | 1.5 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 13 | F153AA155(1)050T | MDC10155(1)50A52P3TUBE |
| 50 | 30 | 1.8 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 12 | F153AA185(1)050T | MDC10185(1)50A52P3TUBE |
| 50 | 30 | 2.2 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 11 | F153AA225(1)050T | MDC10225(1)50A52P3TUBE |
| 50 | 30 | 2.7 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 10 | F153AA275(1)050T | MDC10275(1)50A52P3TUBE |
| 50 | 30 | 3.3 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 8 | F153AA335(1)050T | MDC10335(1)50A52P3TUBE |
| 50 | 30 | 3.9 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 7 | F153AA395(1)050T | MDC10395(1)50A52P3TUBE |
| 50 | 30 | 4.7 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 6 | F153AA475(1)050T | MDC10475(1)50A52P3TUBE |
| 50 | 30 | 5.6 | AA/A54 | 12.2 | 6.05 | 13.5 | 10 | 5 | F15(2)AA565(1)050T | MDC10565(1)50A54P(2)TUBE |
| 50 | 30 | 6.8 | AA/A55 | 12.2 | 6.05 | 16.5 | 10 | 5 | F15(3)AA685(1)050T | MDC10685(1)50A55P(3)TUBE |
| 50 | 30 | 8.2 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 4 | F15(4)AA685(1)050T | MDC10825(1)50A58P(4)TUBE |
| 50 | 30 | 10 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 3 | F15(4)AA106(1)050T | MDC10106(1)50A58P(4)TUBE |
| 50 | 30 | 12 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 3 | F15(4)AA126(1)050T | MDC10126(1)50A58P(4)TUBE |
| 50 | 30 | 15 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 3 | F15(4)AA156(1)050T | MDC10156(1)50A58P(4)TUBE |
| 50 | 30 | 0.033 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 390 | F153BA333(1)050T | MDC15333(1)50B53P3TUBE |
| 50 | 30 | 0.039 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 330 | F153BA393(1)050T | MDC15393(1)50B53P3TUBE |
| 50 | 30 | 0.047 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 270 | F153BA473(1)050T | MDC15473(1)50B53P3TUBE |
| 50 | 30 | 0.056 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 230 | F153BA563(1)050T | MDC15563(1)50B53P3TUBE |
| 50 | 30 | 0.068 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 190 | F153BA683(1)050T | MDC15683(1)50B53P3TUBE |
| 50 | 30 | 0.082 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 160 | F153BA823(1)050T | MDC15823(1)50B53P3TUBE |
| 50 | 30 | 0.10 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 130 | F153BA104(1)050T | MDC15104(1)50B53P3TUBE |
| 50 | 30 | 0.12 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 110 | F153BA124(1)050T | MDC15124(1)50B53P3TUBE |
| 50 | 30 | 0.15 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 85 | F153BA154(1)050T | MDC15154(1)50B53P3TUBE |
| 50 | 30 | 0.18 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 70 | F153BA184(1)050T | MDC15184(1)50B53P3TUBE |
| 50 | 30 | 0.22 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 58 | F153BA224(1)050T | MDC15224(1)50B53P3TUBE |
| 50 | 30 | 0.27 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 47 | F153BA274(1)050T | MDC15274(1)50B53P3TUBE |
| 50 | 30 | 0.33 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 39 | F153BA334(1)050T | MDC15334(1)50B53P3TUBE |
| 50 | 30 | 0.39 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 39 | F153BA394(1)050T | MDC15394(1)50B53P3TUBE |
| 50 | 30 | 0.47 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 30 | F153BA474(1)050T | MDC15474(1)50B53P3TUBE |
| 50 | 30 | 0.56 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 26 | F153BA564(1)050T | MDC15564(1)50B53P3TUBE |
| 50 | 30 | 0.68 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 21 | F153BA684(1)050T | MDC15684(1)50B53P3TUBE |
| 50 | 30 | 0.82 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 18 | F153BA824(1)050T | MDC15824(1)50B53P3TUBE |
| 50 | 30 | 1.0 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 15 | F153BA105(1)050T | MDC15105(1)50B53P3TUBE |
| 50 | 30 | 1.2 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 15 | F153BA125(1)050T | MDC15125(1)50B53P3TUBE |
| 50 | 30 | 1.5 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 13 | F153BA155(1)050T | MDC15155(1)50B53P3TUBE |
| 50 | 30 | 1.8 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 13 | F153BA185(1)050T | MDC15185(1)50B53P3TUBE |
| 50 | 30 | 2.2 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 11 | F153BA225(1)050T | MDC15225(1)50B53P3TUBE |
| 50 | 30 | 2.7 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 11 | F153BA275(1)050T | MDC15275(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.

| 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 | 3.3 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 8 | F153BA335(1)050T | MDC15335(1)50B53P3TUBE |
| 50 | 30 | 3.9 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 8 | F153BA395(1)050T | MDC15395(1)50B53P3TUBE |
| 50 | 30 | 4.7 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 6 | F153BA475(1)050T | MDC15475(1)50B53P3TUBE |
| 50 | 30 | 5.6 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 5 | F153BA565(1)050T | MDC15565(1)50B53P3TUBE |
| 50 | 30 | 6.8 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 5 | F153BA685(1)050T | MDC15685(1)50B53P3TUBE |
| 100 | 63 | 0.033 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 390 | F153AA333(1)100T | MDC10333(1)100A52P3TUBE |
| 100 | 63 | 0.039 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 330 | F153AA393(1)100T | MDC10393(1)100A52P3TUBE |
| 100 | 63 | 0.047 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 270 | F153AA473(1)100T | MDC10473(1)100A52P3TUBE |
| 100 | 63 | 0.056 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 230 | F153AA563(1)100T | MDC10563(1)100A52P3TUBE |
| 100 | 63 | 0.068 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 190 | F153AA683(1)100T | MDC10683(1)100A52P3TUBE |
| 100 | 63 | 0.082 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 160 | F153AA823(1)100T | MDC10823(1)100A52P3TUBE |
| 100 | 63 | 0.10 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 130 | F153AA104(1)100T | MDC10104(1)100A52P3TUBE |
| 100 | 63 | 0.12 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 110 | F153AA124(1)100T | MDC10124(1)100A52P3TUBE |
| 100 | 63 | 0.15 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 85 | F153AA154(1)100T | MDC10154(1)100A52P3TUBE |
| 100 | 63 | 0.18 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 70 | F153AA184(1)100T | MDC10184(1)100A52P3TUBE |
| 100 | 63 | 0.22 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 58 | F153AA224(1)100T | MDC10224(1)100A52P3TUBE |
| 100 | 63 | 0.27 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 47 | F153AA274(1)100T | MDC10274(1)100A52P3TUBE |
| 100 | 63 | 0.33 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 39 | F153AA334(1)100T | MDC10334(1)100A52P3TUBE |
| 100 | 63 | 0.39 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 33 | F153AA394(1)100T | MDC10394(1)100A52P3TUBE |
| 100 | 63 | 0.47 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 30 | F153AA474(1)100T | MDC10474(1)100A52P3TUBE |
| 100 | 63 | 0.56 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 26 | F153AA564(1)100T | MDC10564(1)100A52P3TUBE |
| 100 | 63 | 0.68 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 21 | F153AA684(1)100T | MDC10684(1)100A52P3TUBE |
| 100 | 63 | 0.82 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 18 | F153AA824(1)100T | MDC10824(1)100A52P3TUBE |
| 100 | 63 | 1.0 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 15 | F153AA105(1)100T | MDC10105(1)100A52P3TUBE |
| 100 | 63 | 1.2 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 14 | F153AA125(1)100T | MDC10125(1)100A52P3TUBE |
| 100 | 63 | 1.5 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 13 | F153AA155(1)100T | MDC10155(1)100A52P3TUBE |
| 100 | 63 | 1.8 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 12 | F153AA185(1)100T | MDC10185(1)100A52P3TUBE |
| 100 | 63 | 2.2 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 11 | F153AA225(1)100T | MDC10225(1)100A52P3TUBE |
| 100 | 35 | 2.7 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 10 | F153AA275(1)100T | MDC10275(1)100A52P3TUBE |
| 100 | 35 | 3.3 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 8 | F153AA335(1)100T | MDC10335(1)100A52P3TUBE |
| 100 | 35 | 3.9 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 7 | F153AA395(1)100T | MDC10395(1)100A52P3TUBE |
| 100 | 35 | 4.7 | AA/A54 | 12.2 | 6.05 | 13.5 | 10 | 6 | F15(2)AA475(1)100T | MDC10475(1)100A54P(2)TUBE |
| 100 | 35 | 4.7 | AA/A53 | 12.7 | 9.0 | 14.0 | 10 | 6 | F15(2)AA475(1)100V687 | MDC10475(1)100A53P(2)TR32 |
| 100 | 35 | 5.6 | AA/A55 | 12.2 | 6.05 | 16.5 | 10 | 5 | F15(3)AA565(1)100T | MDC10565(1)100A55P(3)TUBE |
| 100 | 63 | 6.8 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 5 | F15(4)AA685(1)100T | MDC10685(1)100A58P(4)TUBE |
| 100 | 63 | 8.2 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 4 | F15(4)AA825(1)100T | MDC10825(1)100A58P(4)TUBE |
| 100 | 63 | 10 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 3 | F15(4)AA106(1)100T | MDC10106(1)100A58P(4)TUBE |
| 100 | 63 | 0.033 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 390 | F153BA333(1)100T | MDC15333(1)100B53P3TUBE |
| 100 | 63 | 0.039 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 330 | F153BA393(1)100T | MDC15393(1)100B53P3TUBE |
| 100 | 63 | 0.047 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 270 | F153BA473(1)100T | MDC15473(1)100B53P3TUBE |
| 100 | 63 | 0.056 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 230 | F153BA563(1)100T | MDC15563(1)100B53P3TUBE |
| 100 | 63 | 0.068 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 190 | F153BA683(1)100T | MDC15683(1)100B53P3TUBE |
| 100 | 63 | 0.082 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 160 | F153BA823(1)100T | MDC15823(1)100B53P3TUBE |
| 100 | 63 | 0.10 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 130 | F153BA104(1)100T | MDC15104(1)100B53P3TUBE |
| 100 | 63 | 0.12 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 110 | F153BA124(1)100T | MDC15124(1)100B53P3TUBE |
| 100 | 63 | 0.15 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 85 | F153BA154(1)100T | MDC15154(1)100B53P3TUBE |
| 100 | 63 | 0.18 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 70 | F153BA184(1)100T | MDC15184(1)100B53P3TUBE |
| 100 | 63 | 0.22 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 58 | F153BA224(1)100T | MDC15224(1)100B53P3TUBE |
| 100 | 63 | 0.27 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 47 | F153BA274(1)100T | MDC15274(1)100B53P3TUBE |
| 100 | 63 | 0.33 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 39 | F153BA334(1)100T | MDC15334(1)100B53P3TUBE |
| 100 | 63 | 0.39 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 39 | F153BA394(1)100T | MDC15394(1)100B53P3TUBE |
| 100 | 63 | 0.47 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 30 | F153BA474(1)100T | MDC15474(1)100B53P3TUBE |
| 100 | 63 | 0.56 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 26 | F153BA564(1)100T | MDC15564(1)100B53P3TUBE |
| 100 | 63 | 0.68 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 21 | F153BA684(1)100T | MDC15684(1)100B53P3TUBE |
| 100 | 63 | 0.82 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 18 | F153BA824(1)100T | MDC15824(1)100B53P3TUBE |
| 100 | 63 | 1.0 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 15 | F153BA105(1)100T | MDC15105(1)100B53P3TUBE |
| 100 | 63 | 1.2 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 15 | F153BA125(1)100T | MDC15125(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.

| 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 | 1.5 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 13 | F153BA155(1)100T | MDC15155(1)100B53P3TUBE |
| 100 | 63 | 1.8 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 13 | F153BA185(1)100T | MDC15185(1)100B53P3TUBE |
| 100 | 63 | 2.2 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 11 | F153BA225(1)100T | MDC15225(1)100B53P3TUBE |
| 100 | 63 | 2.7 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 11 | F153BA275(1)100T | MDC15275(1)100B53P3TUBE |
| 100 | 63 | 3.3 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 8 | F153BA335(1)100T | MDC15335(1)100B53P3TUBE |
| 100 | 63 | 3.9 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 8 | F153BA395(1)100T | MDC15395(1)100B53P3TUBE |
| 100 | 35 | 4.7 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 6 | F153BA475(1)100T | MDC15475(1)100B53P3TUBE |
| 100 | 63 | 5.6 | BA/B55 | 16.5 | 6.05 | 12.2 | 15 | 5 | F15(2)BA565(1)100T | MDC15565(1)100B55P(2)TUBE |
| 250 | 160 | 0.033 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 390 | F153AA333(1)250T | MDC10333(1)250A52P3TUBE |
| 250 | 160 | 0.039 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 330 | F153AA393(1)250T | MDC10393(1)250A52P3TUBE |
| 250 | 160 | 0.047 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 270 | F153AA473(1)250T | MDC10473(1)250A52P3TUBE |
| 250 | 160 | 0.056 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 230 | F153AA563(1)250T | MDC10563(1)250A52P3TUBE |
| 250 | 160 | 0.068 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 190 | F153AA683(1)250T | MDC10683(1)250A52P3TUBE |
| 250 | 160 | 0.082 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 160 | F153AA823(1)250T | MDC10823(1)250A52P3TUBE |
| 250 | 160 | 0.10 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 130 | F153AA104(1)250T | MDC10104(1)250A52P3TUBE |
| 250 | 160 | 0.12 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 130 | F153AA124(1)250T | MDC10124(1)250A52P3TUBE |
| 250 | 160 | 0.15 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 130 | F153AA154(1)250T | MDC10154(1)250A52P3TUBE |
| 250 | 160 | 0.18 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 70 | F153AA184(1)250T | MDC10184(1)250A52P3TUBE |
| 250 | 160 | 0.22 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 58 | F153AA224(1)250T | MDC10224(1)250A52P3TUBE |
| 250 | 160 | 0.27 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 47 | F153AA274(1)250T | MDC10274(1)250A52P3TUBE |
| 250 | 160 | 0.33 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 39 | F153AA334(1)250T | MDC10334(1)250A52P3TUBE |
| 250 | 160 | 0.39 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 33 | F153AA394(1)250T | MDC10394(1)250A52P3TUBE |
| 250 | 160 | 0.47 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 30 | F153AA474(1)250T | MDC10474(1)250A52P3TUBE |
| 250 | 160 | 0.56 | AA/A54 | 12.2 | 6.05 | 13.5 | 10 | 26 | F15(2)AA564(1)250T | MDC10564(1)250A54P(2)TUBE |
| 250 | 160 | 0.68 | AA/A55 | 12.2 | 6.05 | 16.5 | 10 | 21 | F15(3)AA684(1)250T | MDC10684(1)250A55P(3)TUBE |
| 250 | 160 | 0.82 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 18 | F15(4)AA824(1)250T | MDC10824(1)250A58P(4)TUBE |
| 250 | 160 | 1.0 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 15 | F15(4)AA105(1)250T | MDC10105(1)250A58P(4)TUBE |
| 250 | 160 | 1.2 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 14 | F15(4)AA125(1)250T | MDC10125(1)250A58P(4)TUBE |
| 250 | 160 | 1.5 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 13 | F15(4)AA155(1)250T | MDC10155(1)250A58P(4)TUBE |
| 250 | 160 | 0.033 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 390 | F153BA333(1)250T | MDC15333(1)250B53P3TUBE |
| 250 | 160 | 0.039 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 330 | F153BA393(1)250T | MDC15393(1)250B53P3TUBE |
| 250 | 160 | 0.047 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 270 | F153BA473(1)250T | MDC15473(1)250B53P3TUBE |
| 250 | 160 | 0.056 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 230 | F153BA563(1)250T | MDC15563(1)250B53P3TUBE |
| 250 | 160 | 0.068 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 190 | F153BA683(1)250T | MDC15683(1)250B53P3TUBE |
| 250 | 160 | 0.082 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 160 | F153BA823(1)250T | MDC15823(1)250B53P3TUBE |
| 250 | 160 | 0.10 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 130 | F153BA104(1)250T | MDC15104(1)250B53P3TUBE |
| 250 | 160 | 0.12 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 110 | F153BA124(1)250T | MDC15124(1)250B53P3TUBE |
| 250 | 160 | 0.15 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 85 | F153BA154(1)250T | MDC15154(1)250B53P3TUBE |
| 250 | 160 | 0.18 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 70 | F153BA184(1)250T | MDC15184(1)250B53P3TUBE |
| 250 | 160 | 0.22 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 58 | F153BA224(1)250T | MDC15224(1)250B53P3TUBE |
| 250 | 160 | 0.27 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 47 | F153BA274(1)250T | MDC15274(1)250B53P3TUBE |
| 250 | 160 | 0.33 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 39 | F153BA334(1)250T | MDC15334(1)250B53P3TUBE |
| 250 | 160 | 0.39 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 39 | F153BA394(1)250T | MDC15394(1)250B53P3TUBE |
| 250 | 160 | 0.47 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 30 | F153BA474(1)250T | MDC15474(1)250B53P3TUBE |
| 250 | 160 | 0.56 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 26 | F153BA564(1)250T | MDC15564(1)250B53P3TUBE |
| 250 | 160 | 0.68 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 21 | F153BA684(1)250T | MDC15684(1)250B53P3TUBE |
| 400 | 200 | 0.033 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 390 | F153AA333(1)400T | MDC10333(1)400A52P3TUBE |
| 400 | 200 | 0.039 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 330 | F153AA393(1)400T | MDC10393(1)400A52P3TUBE |
| 400 | 200 | 0.047 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 270 | F153AA473(1)400T | MDC10473(1)400A52P3TUBE |
| 400 | 200 | 0.056 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 230 | F153AA563(1)400T | MDC10563(1)400A52P3TUBE |
| 400 | 200 | 0.068 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 190 | F153AA683(1)400T | MDC10683(1)400A52P3TUBE |
| 400 | 200 | 0.082 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 160 | F153AA823(1)400T | MDC10823(1)400A52P3TUBE |
| 400 | 200 | 0.10 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 130 | F153AA104(1)400T | MDC10104(1)400A52P3TUBE |
| 400 | 200 | 0.12 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 110 | F153AA124(1)400T | MDC10124(1)400A52P3TUBE |
| 400 | 200 | 0.15 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 85 | F153AA154(1)400T | MDC10154(1)400A52P3TUBE |
| 400 | 200 | 0.18 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 70 | F153AA184(1)400T | MDC10184(1)400A52P3TUBE |
| 400 | 200 | 0.22 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 58 | F15(4)AA224(1)400T | MDC10224(1)400A58P(4)TUBE |
| 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.

| 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 | 0.27 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 47 | F15(4)AA274(1)400T | MDC10274(1)400A58P(4)TUBE |
| 400 | 200 | 0.33 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 39 | F15(4)AA334(1)400T | MDC10334(1)400A58P(4)TUBE |
| 400 | 200 | 0.39 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 33 | F15(4)AA394(1)400T | MDC10394(1)400A58P(4)TUBE |
| 400 | 200 | 0.47 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 30 | F15(4)AA474(1)400T | MDC10474(1)400A58P(4)TUBE |
| 400 | 200 | 0.033 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 390 | F153BA333(1)400T | MDC15333(1)400B53P3TUBE |
| 400 | 200 | 0.039 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 330 | F153BA393(1)400T | MDC15393(1)400B53P3TUBE |
| 400 | 200 | 0.047 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 270 | F153BA473(1)400T | MDC15473(1)400B53P3TUBE |
| 400 | 200 | 0.056 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 230 | F153BA563(1)400T | MDC15563(1)400B53P3TUBE |
| 400 | 200 | 0.068 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 190 | F153BA683(1)400T | MDC15683(1)400B53P3TUBE |
| 400 | 200 | 0.082 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 160 | F153BA823(1)400T | MDC15823(1)400B53P3TUBE |
| 400 | 200 | 0.10 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 130 | F153BA104(1)400T | MDC15104(1)400B53P3TUBE |
| 400 | 200 | 0.12 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 110 | F153BA124(1)400T | MDC15124(1)400B53P3TUBE |
| 400 | 200 | 0.15 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 85 | F153BA154(1)400T | MDC15154(1)400B53P3TUBE |
| 400 | 200 | 0.18 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 70 | F153BA184(1)400T | MDC15184(1)400B53P3TUBE |
| 400 | 200 | 0.22 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 58 | F153BA224(1)400T | MDC15224(1)400B53P3TUBE |
| 400 | 200 | 0.27 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 47 | F153BA274(1)400T | MDC15274(1)400B53P3TUBE |
| 400 | 200 | 0.33 | BA/B55 | 16.5 | 6.05 | 12.2 | 15 | 39 | F15(2)BA334(1)400T | MDC15334(1)400B55P(2)TUBE |
| 630 | 220 | 0.033 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 390 | F153AA333(1)630T | MDC10333(1)630A52P3TUBE |
| 630 | 220 | 0.039 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 330 | F153AA393(1)630T | MDC10393(1)630A52P3TUBE |
| 630 | 220 | 0.047 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 270 | F153AA473(1)630T | MDC10473(1)630A52P3TUBE |
| 630 | 220 | 0.056 | AA/A52 | 12.2 | 6.05 | 11.0 | 10 | 230 | F153AA563(1)630T | MDC10563(1)630A52P3TUBE |
| 630 | 220 | 0.068 | AA/A54 | 12.2 | 6.05 | 13.5 | 10 | 190 | F15(2)AA683(1)630T | MDC10683(1)630A54P(2)TUBE |
| 630 | 220 | 0.082 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 160 | F15(4)AA823(1)630T | MDC10823(1)630A58P(4)TUBE |
| 630 | 220 | 0.10 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 130 | F15(4)AA104(1)630T | MDC10104(1)630A58P(4)TUBE |
| 630 | 220 | 0.12 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 110 | F15(4)AA124(1)630T | MDC10124(1)630A58P(4)TUBE |
| 630 | 220 | 0.15 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 85 | F15(4)AA154(1)630T | MDC10154(1)630A58P(4)TUBE |
| 630 | 220 | 0.18 | AA/A58 | 12.7 | 11.0 | 23.0 | 10 | 70 | F15(4)AA184(1)630T | MDC10184(1)630A58P(4)TUBE |
| 630 | 220 | 0.033 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 390 | F153BA333(1)630T | MDC15333(1)630B53P3TUBE |
| 630 | 220 | 0.039 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 330 | F153BA393(1)630T | MDC15393(1)630B53P3TUBE |
| 630 | 220 | 0.047 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 270 | F153BA473(1)630T | MDC15473(1)630B53P3TUBE |
| 630 | 220 | 0.056 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 230 | F153BA563(1)630T | MDC15563(1)630B53P3TUBE |
| 630 | 220 | 0.068 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 190 | F153BA683(1)630T | MDC15683(1)630B53P3TUBE |
| 630 | 220 | 0.082 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 160 | F153BA823(1)630T | MDC15823(1)630B53P3TUBE |
| 630 | 220 | 0.10 | BA/B53 | 16.5 | 6.05 | 11.0 | 15 | 130 | F153BA104(1)630T | MDC15104(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.

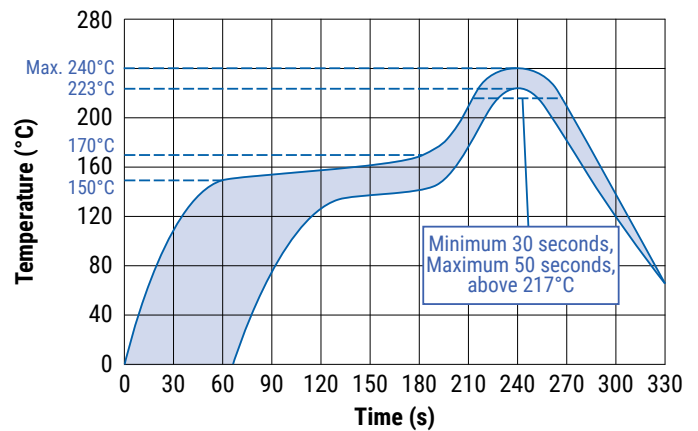
(3) = Number of leads per side, 3, 4 or 5.

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

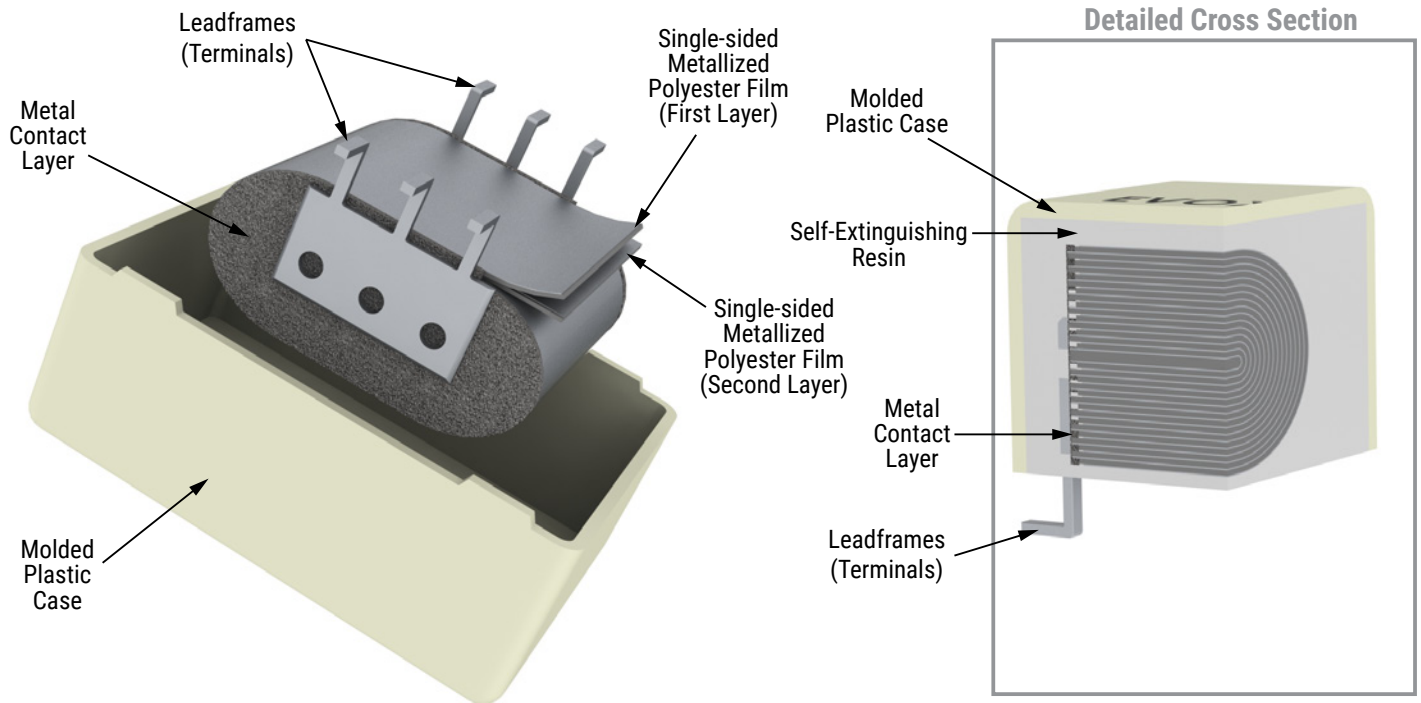
Soldering Process

Reflow soldering temperature is measured on the top surface of the component: Preheating temperature should be less than 170°C. The time above 217°C should be less than 50 seconds. The peak temperature must not exceed 240°C.

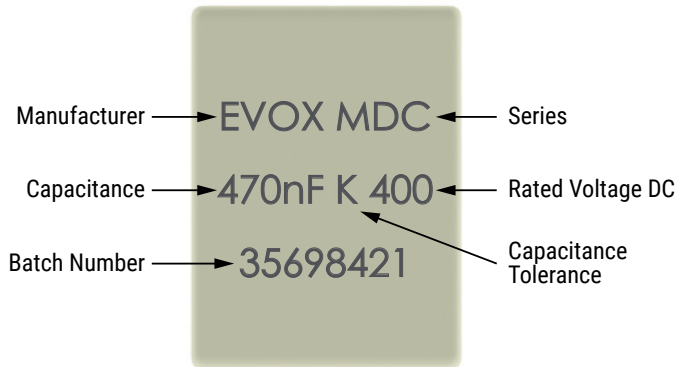
A lead-free soldering process for this series is in development. Please contact KEMET for details.



Construction



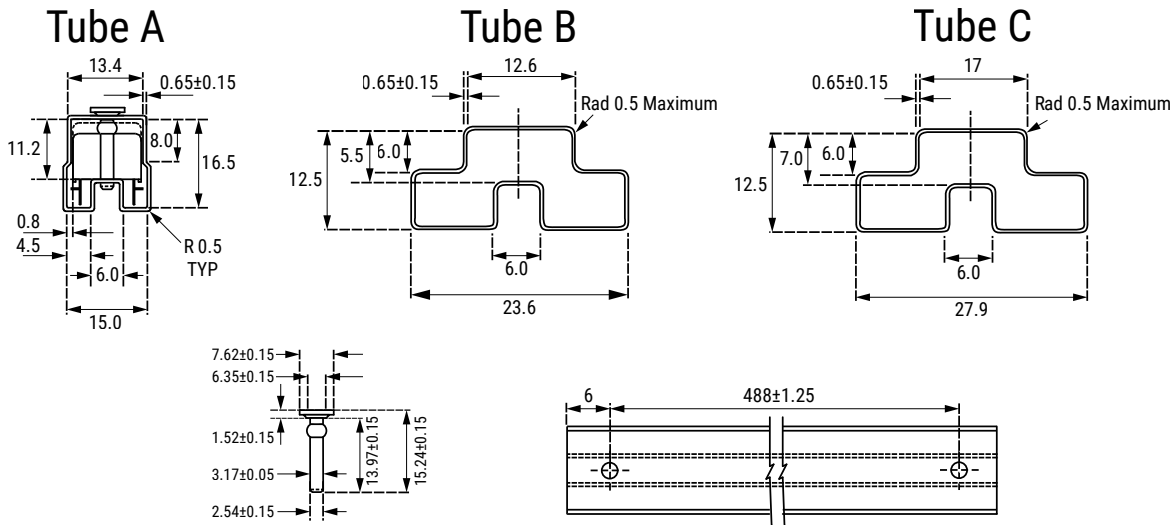
Marking



Packaging Quantities

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

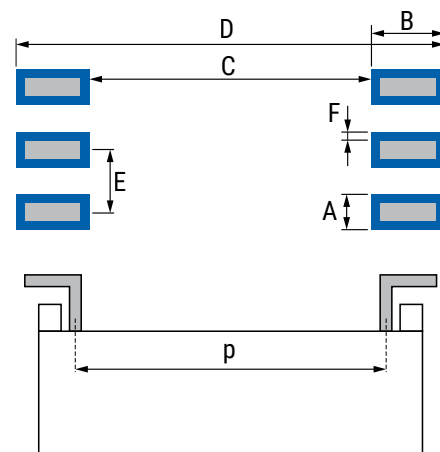
Tube Packaging



| 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 |
| 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 | B | C | D | E | F |
| A52 | 10 | 1 | 2 | 9.15 | 13.15 | 2.54 | 0.25 |
| A53 | 10 | 1 | 2 | 9.15 | 13.15 | 2.54 | 0.25 |
| A54 | 10 | 1 | 2 | 9.15 | 13.15 | 2.54 | 0.25 |
| A55 | 10 | 1 | 2 | 9.15 | 13.15 | 2.54 | 0.25 |
| A58 | 10 | 1 | 2 | 9.15 | 13.15 | 2.54 | 0.25 |
| B53 | 15 | 1 | 2 | 14.15 | 18.15 | 2.54 | 0.25 |
| B55 | 15 | 1 | 2 | 14.15 | 18.15 | 2.54 | 0.25 |



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