KME Series

UNITED CHEMI-CON

- **Miniature**
- **General Purpose**
- **Solvent Proof**
- **+105°C Maximum Temperature**

The KME series capacitors are our standard general purpose capacitors offered with radial or axial lead terminals for selected voltage and capacitance ranges. These capacitors have a rated lifetime of 1,000 hours with the rated ripple current applied. The KME series capacitors with working voltage of 100 or under also have a very low DC leakage current, .002CV or 2μA, whichever is greater after 2 minutes at 20°C.

The KME series capacitors, *except those rated at 350-400 volts and axial lead products with a diameter of 22mm or larger,* were developed to withstand HCFC cleaning agents for five minutes by ultrasonic, vapor or immersion. This solvent proof design allows all circuit board components to be cleaned together, at the same time, without resorting to more expensive epoxy end-sealed capacitors. Refer to the Mini-Glossary for recommended cleaning conditions.

Summary of Specifications

- **Radial or axial lead terminals.**
- **Capacitance range: 0.1 to 22,000μF.**
- **Voltage range: 6.3 to 400VDC.**
- **Operating temperature range: −55°C to +105°C for 6.3 to 100V; −40°C to +105°C for 160 to 400V.**
- **Leakage current: See specifications table for leakage current values at +20°C.**
- **Standard capacitance tolerance: ±20%**
- **Nominal case size (D×L): 5×11mm to 18×40mm for radial lead; 5×12.5mm to 25.4×90mm for axial lead.**
- **Rated lifetime: 1,000 hours at +105°C with the rated ripple current applied.**

KME Series

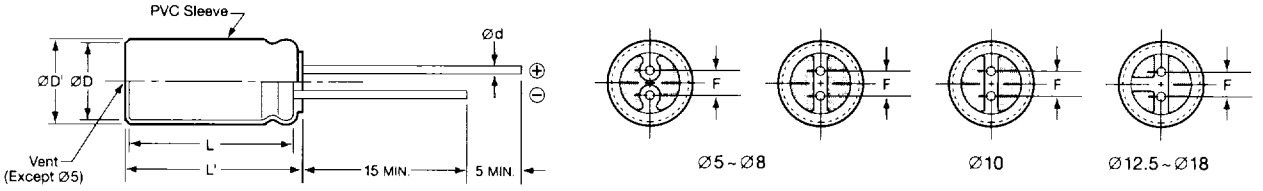
KME Specifications

<table>
<tr><th>Item</th><th>Characteristics</th></tr>
<tr><td>Operating Temperature Range</td><td>−55 to +105°C for 6.3 to 100VDC; −40 to +105°C for 160 to 400VDC</td></tr>
<tr><td>Rated Voltage Range</td><td>6.3 to 400VDC</td></tr>
<tr><td>Capacitance Range</td><td>0.1 to 15,000μF for radial lead; 0.47 to 22,000 for axial lead.</td></tr>
<tr><td>Capacitance Tolerance</td><td>±20% (M) at +20°C, 120Hz</td></tr>
<tr><td>Leakage Current</td><td>At +20°C
<table>
<tr><th>DC Rated Voltage</th><th>Test Time</th><th colspan="2">Leakage Current (μA)</th></tr>
<tr><td>6.3-100V</td><td>After 2 minutes</td><td colspan="2">I = 0.002CV or 2μA, whichever is greater.</td></tr>
<tr><td rowspan="2">160-400V</td><td>After 1 minute</td><td>CV≤1,000: I = 0.1CV+40</td><td>CV>1,000: I = 0.04CV+100</td></tr>
<tr><td>After 5 minutes</td><td>CV≤1,000: I = 0.03CV+15</td><td>CV>1,000: I = 0.02CV+25</td></tr>
</table>
Where I = Leakage current (μA), C = Nominal capacitance (μF) and V = Rated voltage (V)</td></tr>
<tr><td>Dissipation Factor (Tan δ)</td><td>At +20°C, 120Hz
<table>
<tr><th>Rated Voltage (V)</th><th>6.3</th><th>10</th><th>16</th><th>25</th><th>35</th><th>50</th><th>63</th><th>100</th><th>160-250</th><th>350-400</th></tr>
<tr><td>Tan δ (DF)</td><td>0.22</td><td>0.19</td><td>0.16</td><td>0.14</td><td>0.12</td><td>0.10</td><td>0.09</td><td>0.08</td><td>0.20</td><td>0.24</td></tr>
</table>
When nominal capacitance exceeds 1,000μF, add 0.02 to the values above for each 1,000μF increase.</td></tr>
<tr><td>Low Temperature Characteristics</td><td>At 120Hz, impedance (Z) ratio between the −25°C or −40°C value and +20°C value shall not exceed the values given below.
<table>
<tr><th>Rated Voltage (V)</th><th>6.3</th><th>10</th><th>16</th><th>25</th><th>35</th><th>50</th><th>63-100</th><th>160-250</th><th>350-400</th></tr>
<tr><td>Z(−25°C)/Z(+20°C)</td><td>4</td><td>3</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>3</td><td>6</td></tr>
<tr><td>Z(−40°C)/Z(+20°C)</td><td>8</td><td>6</td><td>4</td><td>3</td><td>3</td><td>3</td><td>3</td><td>4</td><td>6</td></tr>
</table></td></tr>
<tr><td>Ripple Current Multipliers</td><td>When capacitors are operated at a temperature and frequency other than +105°C and 120Hz respectively, the ripple current should not exceed the value multiplied by the factor given in the following tables.
Ambient Temperature (°C)
<table>
<tr><th>+85°C</th><th>+105°C</th></tr>
<tr><td>1.75</td><td>1.00</td></tr>
</table>
Frequency (Hz)
<table>
<tr><th>Capacitance (μF)</th><th>50Hz</th><th>120Hz</th><th>300Hz</th><th>1kHz</th><th>10kHz</th><th>100kHz</th></tr>
<tr><td>≤ 3.3μF</td><td>0.65</td><td>1.00</td><td>1.35</td><td>1.75</td><td>2.30</td><td>2.50</td></tr>
<tr><td>4.7-33μF</td><td>0.75</td><td>1.00</td><td>1.25</td><td>1.50</td><td>1.75</td><td>1.80</td></tr>
<tr><td>47-1000μF</td><td>0.80</td><td>1.00</td><td>1.15</td><td>1.30</td><td>1.40</td><td>1.50</td></tr>
<tr><td>≥ 2200μF</td><td>0.85</td><td>1.00</td><td>1.03</td><td>1.05</td><td>1.08</td><td>1.08</td></tr>
</table></td></tr>
<tr><td>Load Life</td><td>The following specifications shall be satisfied when the capacitors are restored to +20°C after subjecting them to the DC rated voltage for 1,000 hours at +105°C with the rated ripple current applied. The sum of DC voltage and peak AC voltage must not exceed the full rated voltage of the capacitors.
Capacitance change: ≤ ±20% of initial measured value
Tan δ (DF) : ≤ 200% of initial specified value
Leakage current : ≤ initial specified value</td></tr>
<tr><td>Shelf Life</td><td>The following specifications shall be satisfied when the capacitors are restored to +20°C after exposing them for 1,000 hours at +105°C without voltage applied. The rated voltage shall be applied to the capacitors for a minimum of 30 minutes, at least 24 hours and not more than 48 hours before the measurements.
Capacitance change: ≤ ±20% of initial measured value
Tan δ (DF) : ≤ 200% of initial specified value
Leakage current : ≤ initial specified value for 6.3-100V
: ≤ 500% of initial specified value for 160-400V</td></tr>
<tr><td>Others</td><td>Satisfies characteristic W of JIS C5141</td></tr>
</table>

Diagram of Dimensions

VB/Radial Lead

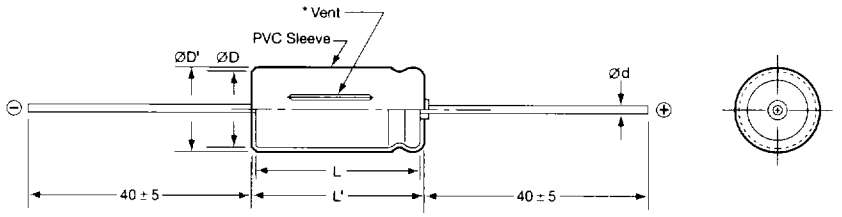
Unit: mm



Gas escape end seal for all case diameters.

ØD	ØD' max.	L' max.	Ød	F ± 0.5
5	ØD + 0.5	L + 1.0	0.5	2.0
6.3	ØD + 0.5	L + 1.0	0.5	2.5
8	ØD + 0.5	L + 1.0	0.6	3.5
10, 12.5	ØD + 0.5	L + 1.0	0.6	5.0
16, 18	ØD + 0.5	L + 1.5	0.8	7.5

T/Axial Lead



*Vent for Ø10 ~ Ø25.4

For optional lead configurations and tape and reel packaging, refer to the beginning of the Miniature section.

ØD	ØD' max.	L' max.	Ød
5, 6.3, 8	ØD + 0.5	L + 1.5	0.6
10, 12.5	ØD + 0.5	L + 1.5	0.6
16, 18	ØD + 0.5	L + 2.0	0.8
22, 25.4	ØD + 0.5	L + 2.0	0.8

Part Numbering System for KME Series

When ordering, always specify complete catalog number for KME Series.

KME 200 VB 22R M 10X20 LL

- LL — Lead Length: LL is Standard.
- 10X20 — Case Code: See Case Sizes in Tables.
- M — Capacitance Tolerance: M = ±20%
- 22R — Capacitance Value: Expressed in microfarads. The first two digits are significant figures, and the third digit indicates the number of zeros for capacitance of 100µF or more. R indicates the decimal point for capacitance less than 100µF (e.g. R22 = .22µF; 2R2 = 2.2µF; 22R = 22µF; 221 = 220µF; 222 = 2,200µF; 223 = 22,000µF).
- VB — Lead Configuration: VB = Radial Lead; T = Axial Lead Terminals.
- 200 — DC Rated Voltage: Expressed in Volts (e.g. 200 = 200WVDC).
- KME — Series Name: Indicates Basic Capacitor Design.

KME Series

Standard Voltage Ratings - VB/Radial Lead

Rated Voltage (WVDC)	Capacitance (µF)	Catalog Part Number	Nominal Case Size* D×L (mm)	Maximum ESR (Ω) at +20°C, 120Hz	Maximum Ripple Current (mA rms) at +105°C, 120Hz
6.3 Volts 8 Volts Surge	33	KME6.3VB33RM5X11LL	5 × 11	11.05	54
	47	KME6.3VB47RM5X11LL	5 × 11	7.759	65
	100	KME6.3VB101M5X11LL	5 × 11	3.647	95
	220	KME6.3VB221M6X11LL	6.3 × 11	1.658	160
	330	KME6.3VB331M6X11LL	6.3 × 11	1.105	195
	470	KME6.3VB471M8X11LL	8 × 11.5	0.776	270
	1,000	KME6.3VB102M10X12LL	10 × 12.5	0.365	460
	2,200	KME6.3VB222M12X20LL	12.5 × 20	0.181	810
	3,300	KME6.3VB332M12X20LL	12.5 × 20	0.131	960
	4,700	KME6.3VB472M16X25LL	16 × 25	0.099	1,330
	6,800	KME6.3VB682M16X25LL	16 × 25	0.078	1,500
	10,000	KME6.3VB103M16X31LL	18 × 31.5	0.066	1,765
	15,000	KME6.3VB153M18X35LL	18 × 35.5	0.055	2,075
10 Volts 13 Volts Surge	22	KME10VB22RM5X11LL	5 × 11	14.315	49
	33	KME10VB33RM5X11LL	5 × 11	9.543	60
	47	KME10VB47RM5X11LL	5 × 11	6.701	70
	100	KME10VB101M5X11LL	5 × 11	3.149	105
	220	KME10VB221M6X11LL	6.3 × 11	1.431	175
	330	KME10VB331M8X11LL	8 × 11.5	0.954	245
	470	KME10VB471M8X11LL	8 × 11.5	0.67	290
	1,000	KME10VB102M10X16LL	10 × 16	0.315	550
	2,200	KME10VB222M12X20LL	12.5 × 20	0.158	860
	3,300	KME10VB332M12X25LL	12.5 × 25	0.116	1,100
	4,700	KME10VB472M16X25LL	16 × 25	0.088	1,400
	6,800	KME10VB682M16X31LL	16 × 31.5	0.071	1,690
	10,000	KME10VB103M18X35LL	18 × 35.5	0.061	1,950
16 Volts 20 Volts Surge	10	KME16VB10RM5X11LL	5 × 11	26.52	35
	22	KME16VB22RM5X11LL	5 × 11	12.055	54
	33	KME16VB33RM5X11LL	5 × 11	8.036	64
	47	KME16VB47RM5X11LL	5 × 11	5.643	77
	100	KME16VB101M6X11LL	6.3 × 11	2.652	125
	220	KME16VB221M8X11LL	8 × 11.5	1.205	215
	330	KME16VB331M8X11LL	8 × 11.5	0.804	260
	470	KME16VB471M10X12LL	10 × 12.5	0.564	370
	1,000	KME16VB102M10X20LL	10 × 20	0.265	640
	2,200	KME16VB222M12X25LL	12.5 × 25	0.136	1,000
	3,300	KME16VB332M16X25LL	16 × 25	0.1	1,300
	4,700	KME16VB472M16X31LL	16 × 31.5	0.078	1,600
	6,800	KME16VB682M18X35LL	18 × 35.5	0.063	1,900
	10,000	KME16VB103M18X40LL	18 × 40	0.061	2,060
25 Volts 32 Volts Surge	4.7	KME25VB4R7M5X11LL	5 × 11	49.372	26
	10	KME25VB10RM5X11LL	5 × 11	23.205	38
	22	KME25VB22RM5X11LL	5 × 11	10.548	57
	33	KME25VB33RM5X11LL	5 × 11	7.032	69
	47	KME25VB47RM5X11LL	5 × 11	4.937	82
	100	KME25VB101M6X11LL	6.3 × 11	2.321	135
	220	KME25VB221M8X11LL	8 × 11.5	1.055	230
	330	KME25VB331M10X12LL	10 × 12.5	0.703	335
	470	KME25VB471M10X16LL	10 × 16	0.494	440
	1,000	KME25VB102M12X20LL	12.5 × 20	0.232	770
	2,200	KME25VB222M16X25LL	16 × 25	0.121	1,170
	3,300	KME25VB332M16X31LL	16 × 31.5	0.09	1,460
	4,700	KME25VB472M18X35LL	18 × 35.5	0.071	1,780
	6,800	KME25VB682M18X40LL	18 × 40	0.059	1,950

*The case sizes in table are with no sleeve, refer to diagram for case sizes with sleeve.

KME Series

Standard Voltage Ratings - VB/Radial Lead

Rated Voltage (WVDC)	Capacitance (µF)	Catalog Part Number	Nominal Case Size* D x L (mm)	Maximum ESR (Ω) at +20°C, 120Hz	Maximum Ripple Current (mA rms) at +105°C, 120Hz
35 Volts 44 Volts Surge	4.7	KME35VB4R7M5X11LL	5 x 11	42.319	28
	10	KME35VB10RM5X11LL	5 x 11	19.89	41
	22	KME35VB22RM5X11LL	5 x 11	9.041	61
	33	KME35VB33RM5X11LL	5 x 11	6.027	75
	47	KME35VB47RM6X11LL	6.3 x 11	4.232	100
	100	KME35VB101M8X11LL	8 x 11.5	1.989	170
	220	KME35VB221M10X12LL	10 x 12.5	0.904	300
	330	KME35VB331M10X16LL	10 x 16	0.603	400
	470	KME35VB471M10X20LL	10 x 20	0.423	520
	1,000	KME35VB102M12X25LL	12.5 x 25	0.199	920
	2,200	KME35VB222M16X31LL	16 x 31.5	0.105	1,340
	3,300	KME35VB332M18X35LL	18 x 35.5	0.08	1,650
	4,700	KME35VB472M18X40LL	18 x 40	0.063	1,900
50 Volts 63 Volts Surge	0.1	KME50VBR10M5X11LL	5 x 11	1,657.5	1.3
	0.22	KME50VBR22M5X11LL	5 x 11	753.409	2.9
	0.33	KME50VBR33M5X11LL	5 x 11	502.273	4.4
	0.47	KME50VBR47M5X11LL	5 x 11	352.66	7.0
	1.0	KME50VB1R0M5X11LL	5 x 11	165.75	13
	2.2	KME50VB2R2M5X11LL	5 x 11	75.341	20
	3.3	KME50VB3R3M5X11LL	5 x 11	50.227	25
	4.7	KME50VB4R7M5X11LL	5 x 11	35.266	30
	10	KME50VB10RM5X11LL	5 x 11	16.575	46
	22	KME50VB22RM5X11LL	5 x 11	7.534	67
	33	KME50VB33RM6X11LL	6.3 x 11	5.023	90
	47	KME50VB47RM6X11LL	6.3 x 11	3.527	110
	100	KME50VB101M8X11LL	8 x 11.5	1.658	180
	220	KME50VB221M10X16LL	10 x 16	0.753	345
	330	KME50VB331M10X20LL	10 x 20	0.502	460
	470	KME50VB471M12X20LL	12.5 x 20	0.353	610
	1,000	KME50VB102M16X25LL	16 x 25	0.166	1,080
	2,200	KME50VB222M18X35LL	18 x 35.5	0.09	1,530
63 Volts 79 Volts Surge	4.7	KME63VB4R7M5X11LL	5 x 11	31.739	32
	10	KME63VB10RM5X11LL	5 x 11	14.918	50
	22	KME63VB22RM6X11LL	6.3 x 11	6.781	82
	33	KME63VB33RM6X11LL	6.3 x 11	4.52	100
	47	KME63VB47RM8X11LL	8 x 11.5	3.174	135
	100	KME63VB101M10X12LL	10 x 12.5	1.492	225
	220	KME63VB221M10X20LL	10 x 20	0.678	400
	330	KME63VB331M12X20LL	12.5 x 20	0.452	540
	470	KME63VB471M12X25LL	12.5 x 25	0.317	700
	1,000	KME63VB102M16X31LL	16 x 31.5	0.149	1,210
100 Volts 125 Volts Surge	0.1	KME100VBR10M5X11LL	5 x 11	1,326.0	2.6
	0.22	KME100VBR22M5X11LL	5 x 11	602.727	5.8
	0.33	KME100VBR33M5X11LL	5 x 11	401.818	7.8
	0.47	KME100VBR47M5X11LL	5 x 11	282.128	10
	1.0	KME100VB1R0M5X11LL	5 x 11	132.6	15
	2.2	KME100VB2R2M5X11LL	5 x 11	60.273	23
	3.3	KME100VB3R3M5X11LL	5 x 11	40.182	29
	4.7	KME100VB4R7M5X11LL	5 x 11	28.213	34
	10	KME100VB10RM6X11LL	6.3 x 11	13.26	56
	22	KME100VB22RM8X11LL	8 x 11.5	6.027	96
	33	KME100VB33RM10X12LL	10 x 12.5	4.018	140
	47	KME100VB47RM10X16LL	10 x 16	2.821	180
	100	KME100VB101M12X20LL	12.5 x 20	1.326	320
	220	KME100VB221M16X25LL	16 x 25	0.603	570
	330	KME100VB331M16X25LL	16 x 25	0.402	700
	470	KME100VB471M16X31LL	16 x 31.5	0.282	880

***The case sizes in table are with no sleeve, refer to diagram for case sizes with sleeve.**

KME Series

Standard Voltage Ratings - VB/Radial Lead

Rated Voltage (WVDC)	Capacitance (µF)	Catalog Part Number	Nominal Case Size* D × L (mm)	Maximum ESR (Ω) at +20°C, 120Hz	Maximum Ripple Current (mA rms) at +105°C, 120Hz
160 Volts 200 Volts Surge	0.47	KME160VBR47M6X11LL	6.3 × 11	705.319	9.0
	1.0	KME160VB1R0M6X11LL	6.3 × 11	331.5	12
	2.2	KME160VB2R2M6X11LL	6.3 × 11	150.682	19
	3.3	KME160VB3R3M8X11LL	8 × 11.5	100.455	26
	4.7	KME160VB4R7M8X11LL	8 × 11.5	70.532	31
	10	KME160VB10RM10X16LL	10 × 16	33.15	59
	22	KME160VB22RM10X20LL	10 × 20	15.068	95
	33	KME160VB33RM12X20LL	12.5 × 20	10.045	125
	47	KME160VB47RM12X25LL	12.5 × 25	7.053	165
	100	KME160VB101M16X25LL	16 × 25	3.315	270
	220	KME160VB221M18X35LL	18 × 35.5	1.507	450
200 Volts 250 Volts Surge	0.47	KME200VBR47M6X11LL	6.3 × 11	705.319	9.0
	1.0	KME200VB1R0M6X11LL	6.3 × 11	331.5	12
	2.2	KME200VB2R2M6X11LL	6.3 × 11	150.682	19
	3.3	KME200VB3R3M8X11LL	8 × 11.5	100.455	26
	4.7	KME200VB4R7M10X12LL	10 × 12.5	70.532	36
	10	KME200VB10RM10X16LL	10 × 16	33.15	59
	22	KME200VB22RM10X20LL	10 × 20	15.068	95
	33	KME200VB33RM12X25LL	12.5 × 25	10.045	140
	47	KME200VB47RM12X25LL	12.5 × 25	7.053	165
	100	KME200VB101M16X31LL	16 × 31.5	3.315	285
	220	KME200VB221M18X40LL	18 × 40	1.507	470
250 Volts 300 Volts Surge	0.47	KME250VBR47M6X11LL	6.3 × 11	705.319	9.0
	1.0	KME250VB1R0M6X11LL	6.3 × 11	331.5	12
	2.2	KME250VB2R2M8X11LL	8 × 11.5	150.682	21
	3.3	KME250VB3R3M10X12LL	10 × 12.5	100.455	30
	4.7	KME250VB4R7M10X12LL	10 × 12.5	70.532	36
	10	KME250VB10RM10X20LL	10 × 20	33.15	64
	22	KME250VB22RM12X25LL	12.5 × 25	15.068	110
	33	KME250VB33RM12X25LL	12.5 × 25	10.045	140
	47	KME250VB47RM16X25LL	16 × 25	7.053	180
	100	KME250VB101M18X35LL	18 × 35.5	3.315	310
350 Volts 400 Volts Surge Not Solvent Proof	0.47	KME350VBR47M8X11LL	8 × 11.5	846.383	10
	1.0	KME350VB1R0M10X12LL	10 × 12.5	397.8	18
	2.2	KME350VB2R2M10X16LL	10 × 16	180.818	30
	3.3	KME350VB3R3M10X16LL	10 × 16	120.545	37
	4.7	KME350VB4R7M10X20LL	10 × 20	84.638	48
	10	KME350VB10RM12X20LL	12.5 × 20	39.78	79
	22	KME350VB22RM16X20LL	16 × 20	18.082	130
	33	KME350VB33RM16X25LL	16 × 25	12.055	175
	47	KME350VB47RM16X35LL	16 × 35.5	8.464	230
	100	KME350VB101M18X40LL	18 × 40	3.978	330
400 Volts 450 Volts Surge Not Solvent Proof	1.0	KME400VB1R0M10X12LL	10 × 12.5	397.8	18
	2.2	KME400VB2R2M10X16LL	10 × 16	180.818	30
	3.3	KME400VB3R3M10X20LL	10 × 20	120.545	40
	4.7	KME400VB4R7M10X25LL	10 × 25	84.638	52
	10	KME400VB10RM12X20LL	12.5 × 20	39.78	79
	22	KME400VB22RM16X25LL	16 × 25	18.082	145
	33	KME400VB33RM16X31LL	16 × 31.5	12.055	185
	47	KME400VB47RM18X31LL	18 × 31.5	8.464	230

*The case sizes in table are with no sleeve, refer to diagram for case sizes with sleeve.

KME Series

Standard Voltage Ratings - T/Axial Lead

Rated Voltage (WVDC)	Capacitance (µF)	Catalog Part Number	Nominal Case Size* D x L (mm)	Maximum ESR (Ω) at +20°C, 120Hz	Maximum Ripple Current (mA rms) at +105°C, 120Hz
6.3 Volts 8 Volts Surge ø22 Not Solvent Proof	100	KME6.3T101M6X12LL	6.3 x 12.5	3.647	91
	3,300	KME6.3T332M12X25LL	12.5 x 25	0.131	920
	4,700	KME6.3T472M12X30LL	12.5 x 30	0.099	1,150
	10,000	KME6.3T103M16X40LL	16 x 40	0.066	1,700
	15,000	KME6.3T153M18X40LL	18 x 40	0.055	1,910
	22,000	KME6.3T223M22X40LL	22 x 40	0.048	2,150
10 Volts 13 Volts Surge ø22 Not Solvent Proof	47	KME10T47RM5X12LL	5 x 12.5	6.701	60
	220	KME10T221M6X16LL	6.3 x 16	1.431	160
	470	KME10T471M8X16LL	8 x 16	0.67	270
	1,000	KME10T102M10X20LL	10 x 20	0.315	500
	2,200	KME10T222M12X25LL	12.5 x 25	0.158	850
	3,300	KME10T332M12X30LL	12.5 x 30	0.116	1,080
	4,700	KME10T472M16X25LL	16 x 25	0.088	1,270
	6,800	KME10T682M16X30LL	16 x 30	0.071	1,530
	10,000	KME10T103M18X40LL	18 x 40	0.061	1,840
	15,000	KME10T153M22X40LL	22 x 40	0.052	2,100
	22,000	KME10T223M22X50LL	22 x 50	0.046	2,340
16 Volts 20 Volts Surge ø22 & ø25.4 Not Solvent Proof	33	KME16T33RM5X12LL	5 x 12.5	8.036	57
	47	KME16T47RM6X12LL	6.3 x 12.5	5.643	77
	330	KME16T331M8X16LL	8 x 16	0.804	260
	470	KME16T471M8X20LL	8 x 20	0.564	330
	1,000	KME16T102M10X25LL	10 x 25	0.265	600
	2,200	KME16T222M12X30LL	12.5 x 30	0.136	1,010
	3,300	KME16T332M16X25LL	16 x 25	0.100	1,210
	4,700	KME16T472M16X30LL	16 x 30	0.078	1,490
	6,800	KME16T682M16X40LL	16 x 40	0.063	1,740
	10,000	KME16T103M22X40LL	22 x 40	0.056	2,050
	15,000	KME16T153M22X50LL	22 x 50	0.049	2,310
	22,000	KME16T223M25X50LL	25.4 x 50	0.044	2,651
25 Volts 32 Volts Surge ø22 & ø25.4 Not Solvent Proof	22	KME25T22RM5X12LL	5 x 12.5	10.548	49
	33	KME25T33RM6X12LL	6.3 x 12.5	7.032	70
	100	KME25T101M6X16LL	6.3 x 16	2.321	130
	220	KME25T221M8X16LL	8 x 16	1.055	220
	330	KME25T331M8X20LL	8 x 20	0.703	300
	470	KME25T471M10X20LL	10 x 20	0.494	410
	1,000	KME25T102M12X25LL	12.5 x 25	0.232	720
	2,200	KME25T222M16X25LL	16 x 25	0.121	1,110
	3,300	KME25T332M16X30LL	16 x 30	0.09	1,380
	4,700	KME25T472M18X40LL	18 x 40	0.071	1,690
	6,800	KME25T682M22X40LL	22 x 40	0.059	1,950
	10,000	KME25T103M22X50LL	22 x 50	0.053	2,230
	15,000	KME25T153M25X50LL	25.4 x 50	0.046	2,601
	22,000	KME25T223M25X70LL	25.4 x 70	0.042	3,150
35 Volts 44 Volts Surge ø22 & ø25.4 Not Solvent Proof	22	KME35T22RM6X12LL	6.3 x 12.5	9.041	62
	220	KME35T221M8X20LL	8 x 20	0.904	260
	330	KME35T331M10X20LL	10 x 20	0.603	360
	470	KME35T471M10X25LL	10 x 25	0.423	480
	1,000	KME35T102M12X30LL	12.5 x 30	0.199	840
	2,200	KME35T222M16X30LL	16 x 30	0.105	1,270
	3,300	KME35T332M16X40LL	16 x 40	0.08	1,540
	4,700	KME35T472M22X40LL	22 x 40	0.063	1,880
	6,800	KME35T682M22X50LL	22 x 50	0.054	2,140
	10,000	KME35T103M25X50LL	25.4 x 50	0.05	2,513
	15,000	KME35T153M25X70LL	25.4 x 70	0.044	3,100

***The case sizes in table are with no sleeve, refer to diagram for case sizes with sleeve.**

KME Series

Standard Voltage Ratings - T/Axial Lead

Rated Voltage (WVDC)	Capacitance (µF)	Catalog Part Number	Nominal Case Size* D x L (mm)	Maximum ESR (Ω) at +20°C, 120Hz	Maximum Ripple Current (mA rms) at +105°C, 120Hz
50 Volts 63 Volts Surge ø22 & ø25.4 Not Solvent Proof	0.47	KME50TR47M5X12LL	5 x 12.5	352.66	8.0
	1.0	KME50T1R0M5X12LL	5 x 12.5	165.75	12
	2.2	KME50T2R2M5X12LL	5 x 12.5	75.341	18
	3.3	KME50T3R3M5X12LL	5 x 12.5	50.227	22
	4.7	KME50T4R7M5X12LL	5 x 12.5	35.266	26
	10	KME50T10RM5X12LL	5 x 12.5	16.575	39
	22	KME50T22RM6X16LL	6.3 x 16	7.534	70
	33	KME50T33RM6X16LL	6.3 x 16	5.023	91
	47	KME50T47RM6X16LL	6.3 x 16	3.527	100
	100	KME50T101M8X16LL	8 x 16	1.658	170
	220	KME50T221M10X20LL	10 x 20	0.753	330
	330	KME50T331M10X25LL	10 x 25	0.502	440
	470	KME50T471M12X25LL	12.5 x 25	0.353	580
	1,000	KME50T102M16X25LL	16 x 25	0.166	940
	2,200	KME50T222M18X40LL	18 x 40	0.09	1,490
	3,300	KME50T332M22X40LL	22 x 40	0.07	1,780
	4,700	KME50T472M22X50LL	22 x 50	0.056	2,100
	6,800	KME50T682M25X50LL	25.4 x 50	0.049	2,482
	10,000	KME50T103M25X70LL	25.4 x 70	0.046	3,090
63 Volts 79 Volts Surge ø22 & ø25.4 Not Solvent Proof	3.3	KME63T3R3M5X12LL	5 x 12.5	45.205	25
	4.7	KME63T4R7M5X12LL	5 x 12.5	31.739	30
	10	KME63T10RM6X12LL	6.3 x 12.5	14.918	51
	22	KME63T22RM6X16LL	6.3 x 16	6.781	84
	33	KME63T33RM6X16LL	6.3 x 16	4.52	98
	47	KME63T47RM8X16LL	8 x 16	3.174	130
	100	KME63T101M8X20LL	8 x 20	1.492	210
	220	KME63T221M10X25LL	10 x 25	0.678	400
	330	KME63T331M12X25LL	12.5 x 25	0.452	550
	470	KME63T471M12X30LL	12.5 x 30	0.317	700
	1,000	KME63T102M16X30LL	16 x 30	0.149	1,130
	2,200	KME63T222M22X40LL	22 x 40	0.083	1,720
	3,300	KME63T332M22X50LL	22 x 50	0.065	2,020
	4,700	KME63T472M25X50LL	25.4 x 50	0.053	2,404
	6,800	KME63T682M25X80LL	25.4 x 80	0.041	3,220
100 Volts 125 Volts Surge ø22 & ø25.4 Not Solvent Proof	0.47	KME100TR47M5X12LL	5 x 12.5	282.128	9.0
	1.0	KME100T1R0M5X12LL	5 x 12.5	132.6	14
	2.2	KME100T2R2M5X12LL	5 x 12.5	60.273	21
	3.3	KME100T3R3M6X12LL	6.3 x 12.5	40.182	31
	4.7	KME100T4R7M6X12LL	6.3 x 12.5	28.213	38
	10	KME100T10RM6X16LL	6.3 x 16	13.26	61
	22	KME100T22RM8X16LL	8 x 16	6.027	98
	33	KME100T33RM8X20LL	8 x 20	4.018	130
	47	KME100T47RM8X20LL	8 x 20	2.821	160
	100	KME100T101M10X25LL	10 x 25	1.326	280
	220	KME100T221M12X30LL	12.5 x 30	0.603	510
	330	KME100T331M16X25LL	16 x 25	0.402	650
	470	KME100T471M16X40LL	16 x 40	0.282	880
	1,000	KME100T102M22X40LL	22 x 40	0.133	1,380
	2,200	KME100T222M25X60LL	25.4 x 60	0.075	2,170
	3,300	KME100T332M25X80LL	25.4 x 80	0.06	2,800
160 Volts 200 Volts Surge ø22 & ø25.4 Not Solvent Proof	0.47	KME160TR47M6X12LL	6.3 x 12.5	705.319	9.0
	22	KME160T22RM10X25LL	10 x 25	15.068	99
	33	KME160T33RM12X25LL	12.5 x 25	10.045	140
	100	KME160T101M16X30LL	16 x 30	3.315	310
	330	KME160T331M22X40LL	22 x 40	1.005	665
	470	KME160T471M22X50LL	22 x 50	0.705	845
	1,000	KME160T102M25X70LL	25.4 x 70	0.332	1,400

***The case sizes in table are with no sleeve, refer to diagram for case sizes with sleeve.**

KME Series

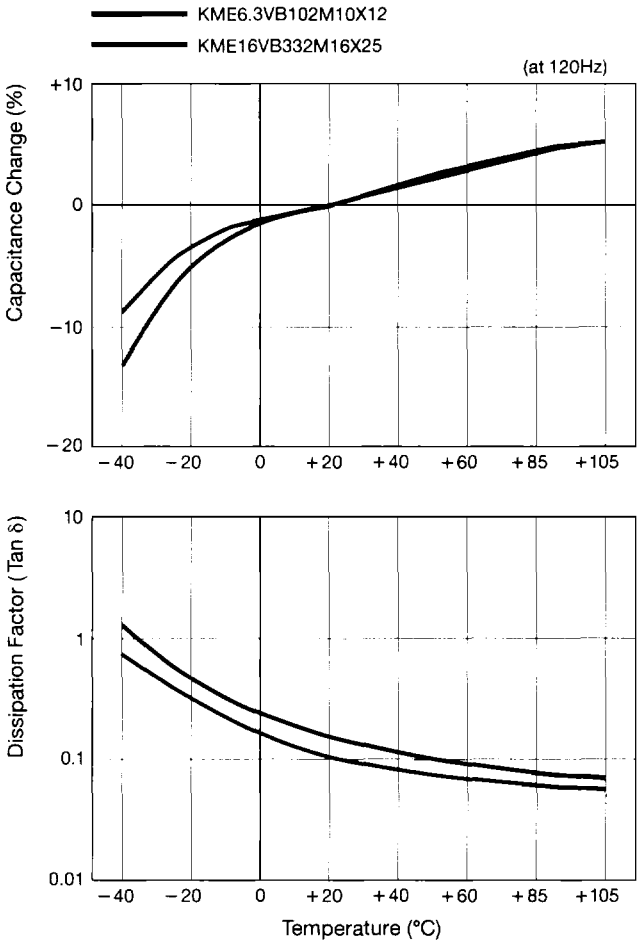
Standard Voltage Ratings - T/Axial Lead

Rated Voltage (WVDC)	Capacitance (µF)	Catalog Part Number	Nominal Case Size* D x L (mm)	Maximum ESR (Ω) at +20°C, 120Hz	Maximum Ripple Current (mA rms) at +105°C, 120Hz
200 Volts 250 Volts Surge ø22 & ø25.4 Not Solvent Proof	1.0	KME200T1R0M6X12LL	6.3 x 12.5	331.5	12
	2.2	KME200T2R2M6X16LL	6.3 x 16	150.682	22
	4.7	KME200T4R7M8X16LL	8 x 16	70.532	36
	10	KME200T10RM10X20LL	10 x 20	33.15	64
	47	KME200T47RM12X30LL	12.5 x 30	7.053	175
	220	KME200T221M22X40LL	22 x 40	1.507	495
	330	KME200T331M22X50LL	22 x 50	1.005	715
	470	KME200T471M25X50LL	25.4 x 50	0.705	870
	1,000	KME200T102M25X90LL	25.4 x 90	0.332	1,490
250 Volts 300 Volts Surge ø22 & ø25.4 Not Solvent Proof	0.47	KME250TR47M6X12LL	6.3 x 12.5	705.319	9.0
	1.0	KME250T1R0M6X16LL	6.3 x 16	331.5	14
	2.2	KME250T2R2M8X16LL	8 x 16	150.682	25
	3.3	KME250T3R3M8X16LL	8 x 16	100.455	30
	4.7	KME250T4R7M10X20LL	10 x 20	70.532	44
	10	KME250T10RM10X25LL	10 x 25	33.15	70
	22	KME250T22RM12X25LL	12.5 x 25	15.068	110
	33	KME250T33RM12X30LL	12.5 x 30	10.045	145
	47	KME250T47RM16X25LL	16 x 25	7.053	185
	100	KME250T101M16X40LL	16 x 40	3.315	310
	220	KME250T221M22X50LL	22 x 50	1.507	515
	330	KME250T331M25X50LL	25.4 x 50	1.005	730
	470	KME250T471M25X60LL	25.4 x 60	0.705	920
350 Volts 400 Volts Surge Not Solvent Proof	0.47	KME350TR47M6X16LL	6.3 x 16	846.383	11
	1.0	KME350T1R0M6X16LL	6.3 x 16	397.8	16
	2.2	KME350T2R2M8X16LL	8 x 16	180.818	27
	3.3	KME350T3R3M8X20LL	8 x 20	120.545	36
	4.7	KME350T4R7M10X20LL	10 x 20	84.638	48
	10	KME350T10RM12X25LL	12.5 x 25	39.78	85
	33	KME350T33RM16X30LL	16 x 30	12.055	180
	47	KME350T47RM16X40LL	16 x 40	8.464	230
	100	KME350T101M16X40LL	22 x 40	3.978	365
	220	KME350T221M25X50LL	25.4 x 50	1.808	595
400 Volts 450 Volts Surge Not Solvent Proof	1.0	KME400T1R0M8X16LL	8 x 16	397.8	18
	2.2	KME400T2R2M8X20LL	8 x 20	180.818	30
	3.3	KME400T3R3M10X20LL	10 x 20	120.545	40
	4.7	KME400T4R7M10X25LL	10 x 25	84.638	52
	10	KME400T10RM12X30LL	12.5 x 30	39.78	91
	22	KME400T22RM16X30LL	16 x 30	18.082	145
	33	KME400T33RM16X40LL	16 x 40	12.055	195
	47	KME400T47RM18X40LL	18 x 40	8.464	235
	100	KME400T101M22X50LL	22 x 50	3.978	385
	220	KME400T221M25X60LL	25.4 x 60	1.808	630

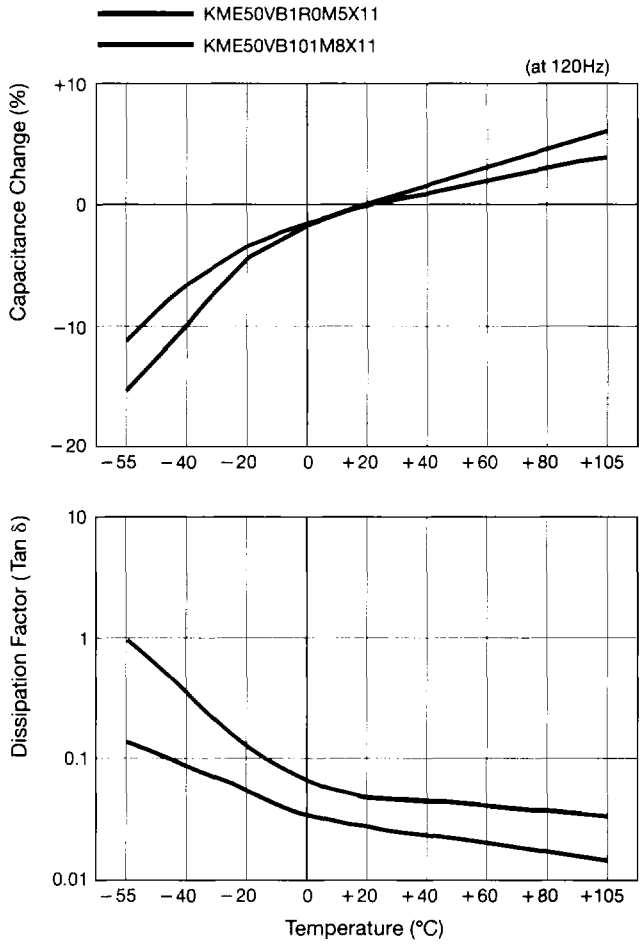
***The case sizes in table are with no sleeve, refer to diagram for case sizes with sleeve.**

KME Series

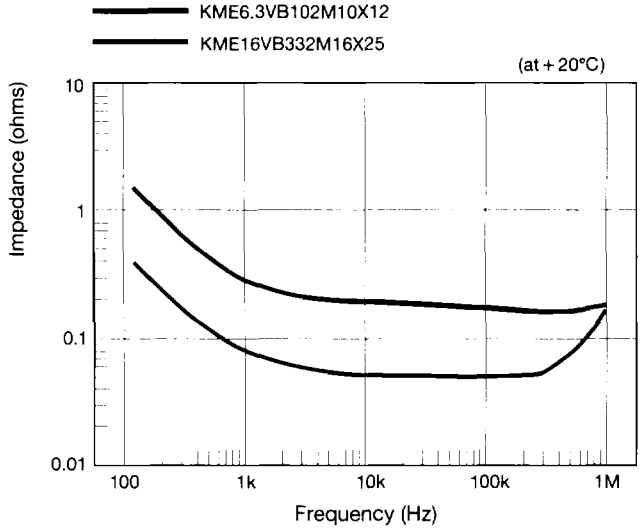
Temperature Characteristics



Temperature Characteristics



Impedance – Frequency Characteristics



Impedance – Frequency Characteristics