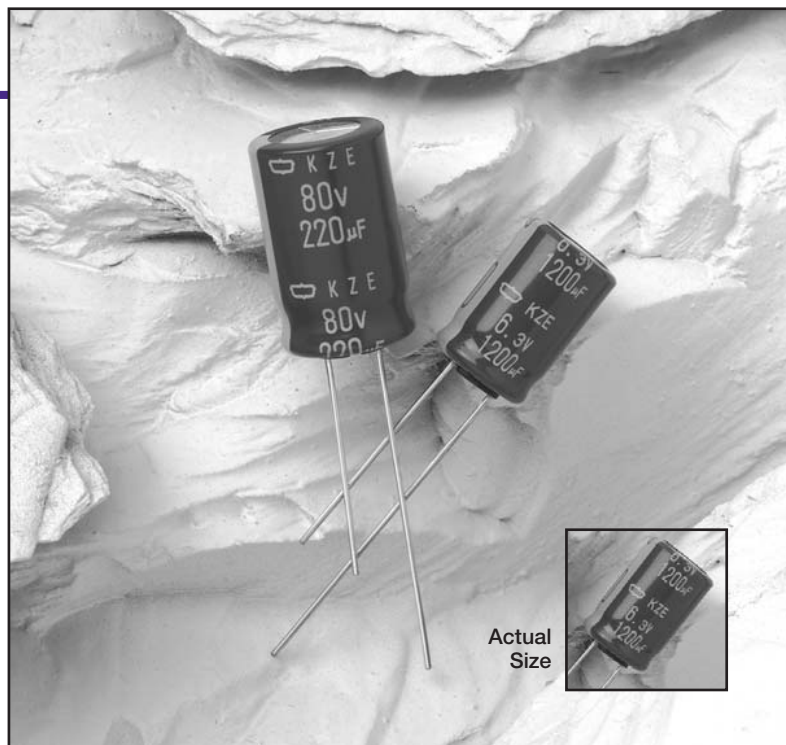


- **Miniature**
- **Very Low Impedance**
- **Long Life Up to 5k Hours**
- **+105°C Maximum Temperature**



The KZE series is a very low impedance series from United Chemi-Con that is different from the standard low impedance capacitors because of a special low resistivity electrolyte. This series has been upgraded to include a new 7mm case length with 5, 6.3 or 8mm case diameter. The KZE series is designed for use in computers, storage equipment, DC-DC converters, power supply control circuits for DVD-R/RW/RAM drives and 42V automotive battery systems. The KZE capacitors are also cost-effective replacements for low impedance chips. As an option the KZE series is available with environmentally friendly PET (polyester) sleeves and Pb-free materials.

The KZE series capacitors are non-solvent proof. Refer to the Mini-Glossary for cleaning guidelines and recommended cleaning agents that are compatible with United Chemi-Con products.

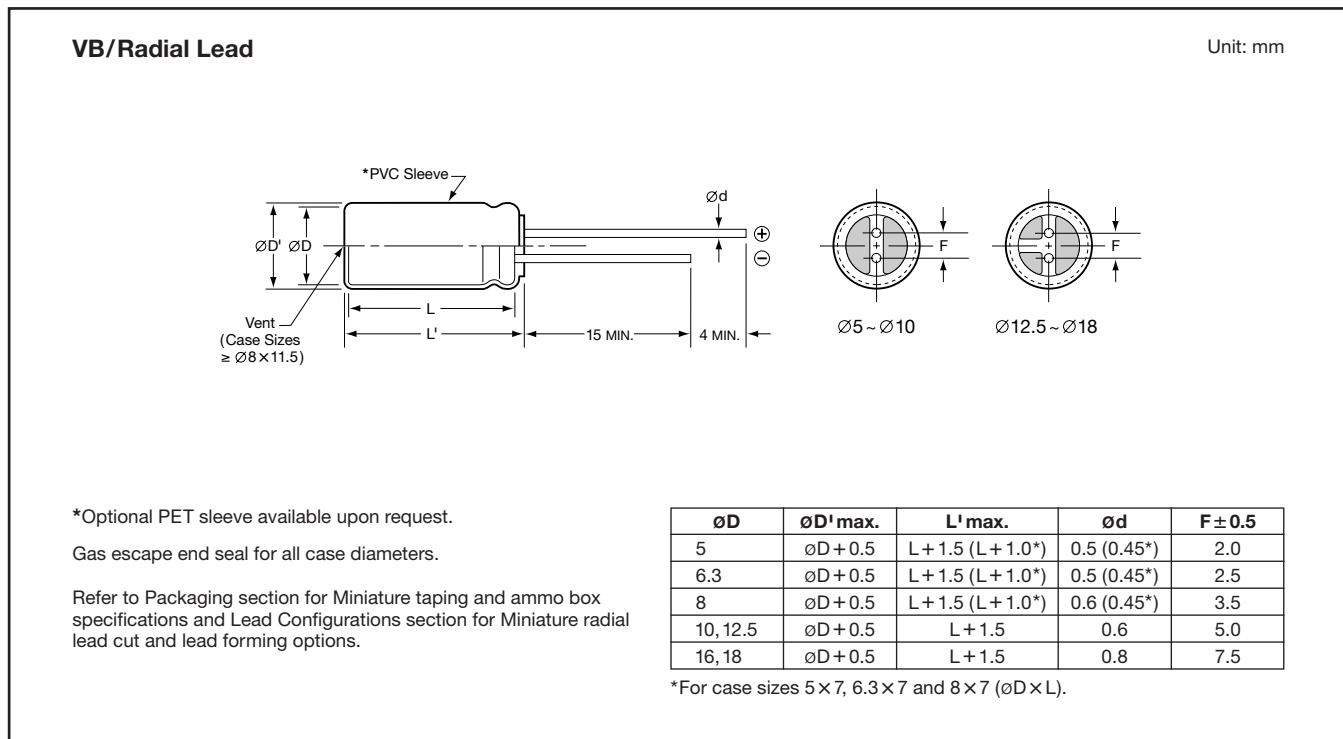
Summary of Specifications

- **Radial lead terminals.**
- **Capacitance range: 6.8 to 6,800µF.**
- **Voltage range: 6.3 to 100VDC.**
- **Category temperature range: -40°C to +105°C.**
- **Leakage current: 0.01CV or 3µA, whichever is greater, after 2 minutes at +20°C.**
- **Standard capacitance tolerance: ±20%**
- **Nominal case size (D×L): 5×7mm to 18×40mm.**
- **Rated lifetime: 1,000 to 5,000 hours at +105°C with the rated ripple current applied, depending on case size.**

KZE Specifications

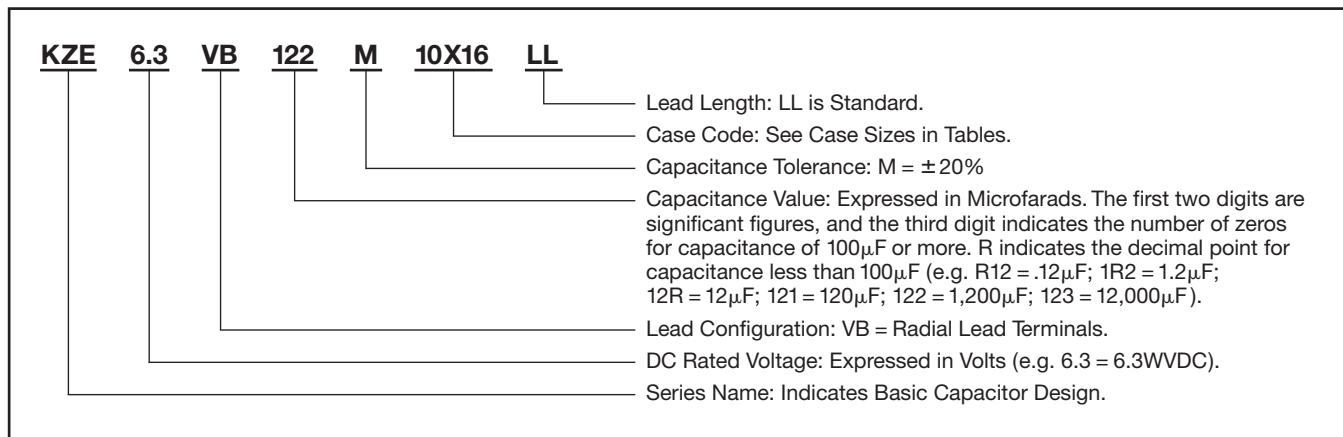
Item	Characteristics																																																					
Category Temperature Range	- 40 to +105°C																																																					
Rated Voltage Range	6.3 to 100VDC																																																					
Capacitance Range	6.8 to 6,800 μ F																																																					
Capacitance Tolerance	\pm 20% (M) at +20°C, 120Hz																																																					
Leakage Current	I = 0.01CV or 3 μ A, whichever is greater, after 2 minutes at +20°C. Where I = Max. leakage current (μ A), C = Nominal capacitance (μ F) and V = Rated voltage (V)																																																					
Dissipation Factor (Tan δ)	At +20°C, 120Hz <table border="1"> <thead> <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>80</th> <th>100</th> </tr> </thead> <tbody> <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>0.09</td> <td>0.08</td> </tr> </tbody> </table> When nominal capacitance exceeds 1,000 μ F, add 0.02 to the values above for each 1,000 μ F increase.	Rated Voltage (V)	6.3	10	16	25	35	50	63	80	100	Tan δ (DF)	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.09	0.08																																	
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Impedance at 100kHz	At 100kHz, maximum impedance at +20°C and -10°C is specified in the Ratings Tables.																																																					
Low Temperature Characteristics	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 border="1"> <thead> <tr> <th>Rated Voltage (V)</th> <th>6.3-100</th> </tr> </thead> <tbody> <tr> <td>Z(-25°C) / Z(+20°C)</td> <td>2</td> </tr> <tr> <td>Z(-40°C) / Z(+20°C)</td> <td>3</td> </tr> </tbody> </table>	Rated Voltage (V)	6.3-100	Z(-25°C) / Z(+20°C)	2	Z(-40°C) / Z(+20°C)	3																																															
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Rated Ripple Current Multipliers <i>Refer to Section 4 of the Mini-Glossary for explanation of Rated Ripple Current Multipliers.</i>	Frequency (Hz) Except 7mm Case Length <table border="1"> <thead> <tr> <th rowspan="2">Capacitance (μF)</th> <th colspan="4">Frequency (Hz)</th> </tr> <tr> <th>120</th> <th>1k</th> <th>10k</th> <th>100k</th> </tr> </thead> <tbody> <tr> <td>6.8-180μF</td> <td>0.40</td> <td>0.75</td> <td>0.90</td> <td>1.00</td> </tr> <tr> <td>220-560μF</td> <td>0.50</td> <td>0.85</td> <td>0.94</td> <td>1.00</td> </tr> <tr> <td>680-1,800μF</td> <td>0.60</td> <td>0.87</td> <td>0.95</td> <td>1.00</td> </tr> <tr> <td>2,200-3,900μF</td> <td>0.75</td> <td>0.90</td> <td>0.95</td> <td>1.00</td> </tr> <tr> <td>4,700-6,800μF</td> <td>0.85</td> <td>0.95</td> <td>0.98</td> <td>1.00</td> </tr> </tbody> </table> Frequency (Hz) 7mm Case Length <table border="1"> <thead> <tr> <th rowspan="2">Capacitance (μF)</th> <th colspan="4">Frequency (Hz)</th> </tr> <tr> <th>120</th> <th>1k</th> <th>10k</th> <th>100k</th> </tr> </thead> <tbody> <tr> <td>10-33μF</td> <td>1.00</td> <td>1.05</td> <td>1.08</td> <td>1.08</td> </tr> <tr> <td>39-220μF</td> <td>1.00</td> <td>1.13</td> <td>1.19</td> <td>1.20</td> </tr> </tbody> </table>	Capacitance (μ F)	Frequency (Hz)				120	1k	10k	100k	6.8-180 μ F	0.40	0.75	0.90	1.00	220-560 μ F	0.50	0.85	0.94	1.00	680-1,800 μ F	0.60	0.87	0.95	1.00	2,200-3,900 μ F	0.75	0.90	0.95	1.00	4,700-6,800 μ F	0.85	0.95	0.98	1.00	Capacitance (μ F)	Frequency (Hz)				120	1k	10k	100k	10-33 μ F	1.00	1.05	1.08	1.08	39-220 μ F	1.00	1.13	1.19	1.20
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Endurance (Load Life)	The following specifications shall be satisfied when the capacitors are restored to +20°C after subjecting them to DC voltage for the specified test time at +105°C with the rated ripple current applied. The sum of the DC voltage and peak AC voltage must not exceed the full rated voltage of the capacitors. <table border="1"> <thead> <tr> <th>Case Length</th> <th>7mm</th> <th>11mm</th> <th>11.5-20mm</th> <th>12.5-25mm</th> <th>16-40mm</th> </tr> </thead> <tbody> <tr> <td>Case Diameter</td> <td>\varnothing5,\varnothing6.3,\varnothing8mm</td> <td>\varnothing5,\varnothing6.3mm</td> <td>\varnothing8mm</td> <td>\varnothing10mm</td> <td>$\geq \varnothing$12.5mm</td> </tr> <tr> <td>Test Time</td> <td>1,000 Hours</td> <td>2,000 Hours</td> <td>3,000 Hours</td> <td>4,000 Hours</td> <td>5,000 Hours</td> </tr> </tbody> </table> Capacitance change: $\leq \pm$ 25% of initial measured value Tan δ (DF) : \leq 200% of initial specified value Leakage current : \leq initial specified value	Case Length	7mm	11mm	11.5-20mm	12.5-25mm	16-40mm	Case Diameter	\varnothing 5, \varnothing 6.3, \varnothing 8mm	\varnothing 5, \varnothing 6.3mm	\varnothing 8mm	\varnothing 10mm	$\geq \varnothing$ 12.5mm	Test Time	1,000 Hours	2,000 Hours	3,000 Hours	4,000 Hours	5,000 Hours																																			
Case Length	7mm	11mm	11.5-20mm	12.5-25mm	16-40mm																																																	
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Test Time	1,000 Hours	2,000 Hours	3,000 Hours	4,000 Hours	5,000 Hours																																																	
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to +20°C after exposing them for 500 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: $\leq \pm$ 25% of initial measured value Tan δ (DF) : \leq 200% of initial specified value Leakage current : \leq initial specified value																																																					

Diagram of Dimensions



Part Numbering System for KZE Series

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



Standard Voltage Ratings - VB/Radial Lead

Rated Voltage (WVDC)	Capacitance (µF)	Catalog Part Number	Nominal Case Size* D × L (mm)	Maximum Impedance (Ω) at		Rated Ripple Current (mA rms) at +105°C, 100kHz
				+20°C, 100kHz	-10°C, 100kHz	
6.3 Volts 8 Volts Surge	68	KZE6.3VB68RM5X7LL	5 × 7	0.43	1.3	210
	150	KZE6.3VB151M5X11LL	5 × 11	0.30	1.0	250
	150	KZE6.3VB151M6X7LL	6.3 × 7	0.23	0.69	300
	220	KZE6.3VB221M8X7LL	8 × 7	0.15	0.45	380
	330	KZE6.3VB331M6X11LL	6.3 × 11	0.13	0.41	405
	560	KZE6.3VB561M8X11LL	8 × 11.5	0.072	0.22	760
	820	KZE6.3VB821M8X15LL	8 × 15	0.056	0.17	995
	1,000	KZE6.3VB102M10X12LL	10 × 12.5	0.053	0.16	1,030
	1,200	KZE6.3VB122M8X20LL	8 × 20	0.041	0.13	1,250
	1,200	KZE6.3VB122M10X16LL	10 × 16	0.038	0.12	1,430

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

Standard Voltage Ratings - VB/Radial Lead

Rated Voltage (WVDC)	Capacitance (µF)	Catalog Part Number	Nominal Case Size* D × L (mm)	Maximum Impedance (Ω) at		Rated Ripple Current (mA rms) at +105°C, 100kHz
				+20°C, 100kHz	-10°C, 100kHz	
6.3 Volts 8 Volts Surge	1,500	KZE6.3VB152M10X20LL	10 × 20	0.023	0.069	1,820
	2,200	KZE6.3VB222M10X25LL	10 × 25	0.022	0.066	2,150
	3,300	KZE6.3VB332M12X20LL	12.5 × 20	0.021	0.053	2,360
	3,900	KZE6.3VB392M12X25LL	12.5 × 25	0.018	0.045	2,770
	4,700	KZE6.3VB472M12X30LL	12.5 × 30	0.016	0.041	3,290
	5,600	KZE6.3VB562M12X35LL	12.5 × 35	0.015	0.039	3,400
	5,600	KZE6.3VB562M16X20LL	16 × 20	0.018	0.045	3,140
	6,800	KZE6.3VB682M16X25LL	16 × 25	0.016	0.043	3,460
10 Volts 13 Volts Surge	56	KZE10VB56RM5X7LL	5 × 7	0.44	1.4	210
	100	KZE10VB101M5X11LL	5 × 11	0.30	1.0	250
	120	KZE10VB121M6X7LL	6.3 × 7	0.23	0.69	300
	180	KZE10VB181M8X7LL	8 × 7	0.15	0.45	380
	220	KZE10VB221M6X11LL	6.3 × 11	0.13	0.41	405
	470	KZE10VB471M8X11LL	8 × 11.5	0.072	0.22	760
	680	KZE10VB681M8X15LL	8 × 15	0.056	0.17	995
	680	KZE10VB681M10X12LL	10 × 12.5	0.053	0.16	1,030
	1,000	KZE10VB102M8X20LL	8 × 20	0.041	0.13	1,250
	1,000	KZE10VB102M10X16LL	10 × 16	0.038	0.12	1,430
	1,200	KZE10VB122M10X20LL	10 × 20	0.023	0.069	1,820
	1,500	KZE10VB152M10X25LL	10 × 25	0.022	0.066	2,150
	2,200	KZE10VB222M12X20LL	12.5 × 20	0.021	0.053	2,360
	3,300	KZE10VB332M12X25LL	12.5 × 25	0.018	0.045	2,770
	3,900	KZE10VB392M12X30LL	12.5 × 30	0.016	0.041	3,290
	3,900	KZE10VB392M16X20LL	16 × 20	0.018	0.045	3,140
	4,700	KZE10VB472M12X35LL	12.5 × 35	0.015	0.039	3,400
	5,600	KZE10VB562M16X25LL	16 × 25	0.016	0.043	3,460
16 Volts 20 Volts Surge	33	KZE16VB33RM5X7LL	5 × 7	0.45	1.4	210
	56	KZE16VB56RM5X11LL	5 × 11	0.30	1.0	250
	68	KZE16VB68RM6X7LL	6.3 × 7	0.24	0.72	300
	120	KZE16VB121M6X11LL	6.3 × 11	0.13	0.41	405
	120	KZE16VB121M8X7LL	8 × 7	0.15	0.45	380
	330	KZE16VB331M8X11LL	8 × 11.5	0.072	0.22	760
	470	KZE16VB471M8X15LL	8 × 15	0.056	0.17	995
	470	KZE16VB471M10X12LL	10 × 12.5	0.053	0.16	1,030
	680	KZE16VB681M8X20LL	8 × 20	0.041	0.13	1,250
	680	KZE16VB681M10X16LL	10 × 16	0.038	0.12	1,430
	1,000	KZE16VB102M10X20LL	10 × 20	0.023	0.069	1,820
	1,200	KZE16VB122M10X25LL	10 × 25	0.022	0.066	2,150
	1,500	KZE16VB152M12X20LL	12.5 × 20	0.021	0.053	2,360
	2,200	KZE16VB222M12X25LL	12.5 × 25	0.018	0.045	2,770
	2,700	KZE16VB272M12X30LL	12.5 × 30	0.016	0.041	3,290
	2,700	KZE16VB272M16X20LL	16 × 20	0.018	0.045	3,140
	3,300	KZE16VB332M12X35LL	12.5 × 35	0.015	0.039	3,400
	3,900	KZE16VB392M16X25LL	16 × 25	0.016	0.043	3,460
25 Volts 32 Volts Surge	27	KZE25VB27RM5X7LL	5 × 7	0.46	1.4	210
	47	KZE25VB47RM5X11LL	5 × 11	0.30	1.0	250
	56	KZE25VB56RM6X7LL	6.3 × 7	0.24	0.72	300
	100	KZE25VB101M6X11LL	6.3 × 11	0.13	0.41	405
	100	KZE25VB101M8X7LL	8 × 7	0.15	0.45	380
	220	KZE25VB221M8X11LL	8 × 11.5	0.072	0.22	760
	330	KZE25VB331M8X15LL	8 × 15	0.056	0.17	995
	330	KZE25VB331M10X12LL	10 × 12.5	0.053	0.16	1,030
	470	KZE25VB471M8X20LL	8 × 20	0.041	0.13	1,250
	470	KZE25VB471M10X16LL	10 × 16	0.038	0.12	1,430
	680	KZE25VB681M10X20LL	10 × 20	0.023	0.069	1,820
	820	KZE25VB821M10X25LL	10 × 25	0.022	0.066	2,150
	1,000	KZE25VB102M12X20LL	12.5 × 20	0.021	0.053	2,360

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

Standard Voltage Ratings - VB/Radial Lead

Rated Voltage (WVDC)	Capacitance (µF)	Catalog Part Number	Nominal Case Size* D × L (mm)	Maximum Impedance (Ω) at		Rated Ripple Current (mA rms) at +105°C, 100kHz
				+20°C, 100kHz	-10°C, 100kHz	
25 Volts 32 Volts Surge	1,500	KZE25VB152M12X25LL	12.5 × 25	0.018	0.045	2,770
	1,800	KZE25VB182M12X30LL	12.5 × 30	0.016	0.041	3,290
	1,800	KZE25VB182M16X20LL	16 × 20	0.018	0.045	3,140
	2,200	KZE25VB222M12X35LL	12.5 × 35	0.015	0.039	3,400
	2,700	KZE25VB272M16X25LL	16 × 25	0.016	0.043	3,460
35 Volts 44 Volts Surge	18	KZE35VB18RM5X7LL	5 × 7	0.47	1.5	210
	33	KZE35VB33RM5X11LL	5 × 11	0.30	1.0	250
	39	KZE35VB39RM6X7LL	6.3 × 7	0.25	0.75	300
	56	KZE35VB56RM6X11LL	6.3 × 11	0.13	0.41	405
	56	KZE35VB56RM8X7LL	8 × 7	0.16	0.48	380
	150	KZE35VB151M8X11LL	8 × 11.5	0.072	0.22	760
	220	KZE35VB221M8X15LL	8 × 15	0.056	0.17	995
	220	KZE35VB221M10X12LL	10 × 12.5	0.053	0.16	1,030
	270	KZE35VB271M8X20LL	8 × 20	0.041	0.13	1,250
	330	KZE35VB331M10X16LL	10 × 16	0.038	0.12	1,430
	470	KZE35VB471M10X20LL	10 × 20	0.023	0.069	1,820
	560	KZE35VB561M10X25LL	10 × 25	0.022	0.066	2,150
	680	KZE35VB681M12X20LL	12.5 × 20	0.021	0.053	2,360
	1,000	KZE35VB102M12X25LL	12.5 × 25	0.018	0.045	2,770
	1,200	KZE35VB122M12X30LL	12.5 × 30	0.016	0.041	3,290
1,200	KZE35VB122M16X20LL	16 × 20	0.018	0.045	3,140	
1,500	KZE35VB152M12X35LL	12.5 × 35	0.015	0.039	3,400	
1,800	KZE35VB182M16X25LL	16 × 25	0.016	0.043	3,460	
50 Volts 63 Volts Surge	10	KZE50VB10RM5X7LL	5 × 7	0.50	1.5	210
	22	KZE50VB22RM5X11LL	5 × 11	0.34	1.18	238
	22	KZE50VB22RM6X7LL	6.3 × 7	0.26	0.78	300
	33	KZE50VB33RM8X7LL	8 × 7	0.17	0.51	380
	56	KZE50VB56RM6X11LL	6.3 × 11	0.14	0.50	385
	100	KZE50VB101M8X11LL	8 × 11.5	0.074	0.22	724
	120	KZE50VB121M8X15LL	8 × 15	0.061	0.18	950
	150	KZE50VB151M10X12LL	10 × 12.5	0.061	0.18	979
	180	KZE50VB181M8X20LL	8 × 20	0.046	0.14	1,190
	220	KZE50VB221M10X16LL	10 × 16	0.042	0.12	1,370
	270	KZE50VB271M10X20LL	10 × 20	0.030	0.090	1,580
	330	KZE50VB331M10X25LL	10 × 25	0.028	0.085	1,870
	470	KZE50VB471M12X20LL	12.5 × 20	0.027	0.068	2,050
	560	KZE50VB561M12X25LL	12.5 × 25	0.023	0.059	2,410
	680	KZE50VB681M12X30LL	12.5 × 30	0.021	0.052	2,860
820	KZE50VB821M12X35LL	12.5 × 35	0.019	0.051	2,960	
820	KZE50VB821M16X20LL	16 × 20	0.023	0.059	2,730	
1,000	KZE50VB102M16X25LL	16 × 25	0.021	0.056	3,010	
63 Volts 79 Volts Surge	15	KZE63VB15RM5X11LL	5 × 11	0.88	3.5	165
	33	KZE63VB33RM6X11LL	6.3 × 11	0.35	1.4	265
	56	KZE63VB56RM8X11LL	8 × 11.5	0.22	0.88	500
	82	KZE63VB82RM8X15LL	8 × 15	0.16	0.64	665
	82	KZE63VB82RM10X12LL	10 × 12.5	0.11	0.44	690
	120	KZE63VB121M8X20LL	8 × 20	0.12	0.48	820
	120	KZE63VB121M10X16LL	10 × 16	0.076	0.31	950
	180	KZE63VB181M10X20LL	10 × 20	0.056	0.23	1,150
	180	KZE63VB181M12X16LL	12.5 × 16	0.072	0.29	1,150
	220	KZE63VB221M10X25LL	10 × 25	0.046	0.19	1,350
	270	KZE63VB271M12X20LL	12.5 × 20	0.041	0.13	1,500
	390	KZE63VB391M12X25LL	12.5 × 25	0.031	0.093	1,900
	470	KZE63VB471M12X30LL	12.5 × 30	0.028	0.084	2,300
	470	KZE63VB471M16X20LL	16 × 20	0.032	0.096	2,000
	560	KZE63VB561M12X35LL	12.5 × 35	0.024	0.072	2,500

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

Standard Voltage Ratings - VB/Radial Lead

Rated Voltage (WVDC)	Capacitance (μF)	Catalog Part Number	Nominal Case Size* D × L (mm)	Maximum Impedance (Ω) at		Rated Ripple Current (mA rms) at +105°C, 100kHz
				+20°C, 100kHz	-10°C, 100kHz	
63 Volts 79 Volts Surge	680	KZE63VB681M12X40LL	12.5 × 40	0.021	0.063	2,800
	680	KZE63VB681M16X25LL	16 × 25	0.025	0.075	2,600
	680	KZE63VB681M18X20LL	18 × 20	0.030	0.090	2,500
	820	KZE63VB821M16X31LL	16 × 31.5	0.021	0.063	2,850
	820	KZE63VB821M18X25LL	18 × 25	0.024	0.072	2,800
	1,000	KZE63VB102M16X35LL	16 × 35.5	0.019	0.057	2,900
	1,200	KZE63VB122M16X40LL	16 × 40	0.018	0.054	3,400
	1,200	KZE63VB122M18X31LL	18 × 31.5	0.020	0.060	3,300
	1,500	KZE63VB152M18X35LL	18 × 35.5	0.018	0.054	3,400
1,800	KZE63VB182M18X40LL	18 × 40	0.017	0.051	3,500	
80 Volts 100 Volts Surge	68	KZE80VB68RM10X12LL	10 × 12.5	0.17	0.66	480
	100	KZE80VB101M10X16LL	10 × 16	0.11	0.47	600
	120	KZE80VB121M10X20LL	10 × 20	0.084	0.34	800
	150	KZE80VB151M10X25LL	10 × 25	0.069	0.28	900
	150	KZE80VB151M12X16LL	12.5 × 16	0.11	0.34	750
	220	KZE80VB221M12X20LL	12.5 × 20	0.062	0.18	1,100
	330	KZE80VB331M12X25LL	12.5 × 25	0.047	0.14	1,250
	330	KZE80VB331M16X20LL	16 × 20	0.048	0.15	1,350
	390	KZE80VB391M12X30LL	12.5 × 30	0.042	0.13	1,500
	470	KZE80VB471M12X35LL	12.5 × 35	0.036	0.11	1,650
	470	KZE80VB471M16X25LL	16 × 25	0.038	0.12	1,700
	470	KZE80VB471M18X20LL	18 × 20	0.045	0.14	1,500
	560	KZE80VB561M12X40LL	12.5 × 40	0.032	0.095	1,800
	680	KZE80VB681M16X31LL	16 × 31.5	0.032	0.095	1,850
	680	KZE80VB681M18X25LL	18 × 25	0.036	0.11	1,750
	820	KZE80VB821M16X35LL	16 × 35.5	0.029	0.086	2,000
	820	KZE80VB821M18X31LL	18 × 31.5	0.030	0.090	1,900
	1,000	KZE80VB102M16X40LL	16 × 40	0.027	0.081	2,200
1,000	KZE80VB102M18X35LL	18 × 35.5	0.027	0.081	2,200	
1,200	KZE80VB122M18X40LL	18 × 40	0.026	0.077	2,700	
100 Volts 125 Volts Surge	6.8	KZE100VB68M5X11LL	5 × 11	1.4	5.6	125
	15	KZE100VB15RM6X11LL	6.3 × 11	0.57	2.3	205
	27	KZE100VB27RM8X11LL	8 × 11.5	0.36	1.4	355
	39	KZE100VB39RM8X15LL	8 × 15	0.25	1.0	450
	47	KZE100VB47RM10X12LL	10 × 12.5	0.17	0.66	480
	56	KZE100VB56RM8X20LL	8 × 20	0.19	0.76	565
	68	KZE100VB68RM10X16LL	10 × 16	0.11	0.47	600
	82	KZE100VB82RM10X20LL	10 × 20	0.084	0.34	800
	100	KZE100VB101M12X16LL	12.5 × 16	0.11	0.34	750
	120	KZE100VB121M10X25LL	10 × 25	0.069	0.28	900
	150	KZE100VB151M12X20LL	12.5 × 20	0.062	0.18	1,100
	220	KZE100VB221M12X25LL	12.5 × 25	0.047	0.14	1,250
	220	KZE100VB221M16X20LL	16 × 20	0.048	0.15	1,350
	270	KZE100VB271M12X30LL	12.5 × 30	0.042	0.13	1,500
	330	KZE100VB331M12X35LL	12.5 × 35	0.036	0.11	1,650
	330	KZE100VB331M16X25LL	16 × 25	0.038	0.12	1,700
	330	KZE100VB331M18X20LL	18 × 20	0.045	0.14	1,500
	390	KZE100VB391M12X40LL	12.5 × 40	0.032	0.095	1,800
	470	KZE100VB471M16X31LL	16 × 31.5	0.032	0.095	1,850
	470	KZE100VB471M18X25LL	18 × 25	0.036	0.11	1,750
	560	KZE100VB561M16X35LL	16 × 35.5	0.029	0.086	2,000
560	KZE100VB561M18X31LL	18 × 31.5	0.030	0.090	1,900	
680	KZE100VB681M16X40LL	16 × 40	0.027	0.081	2,200	
680	KZE100VB681M18X35LL	18 × 35.5	0.027	0.081	2,200	
820	KZE100VB821M18X40LL	18 × 40	0.026	0.077	2,700	

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