

KZB Nonpolar High Temperature Miniature Aluminum Electrolytic Capacitors

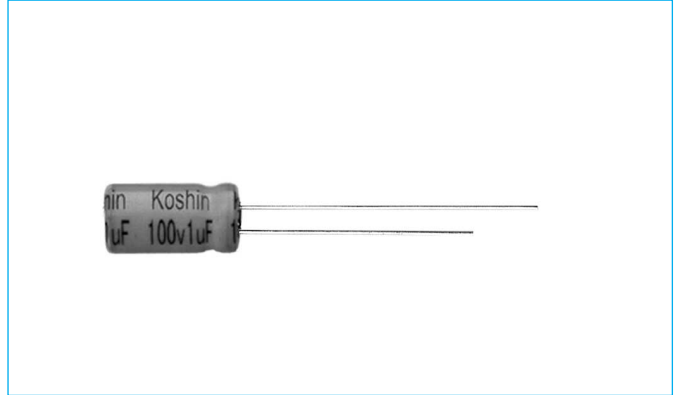
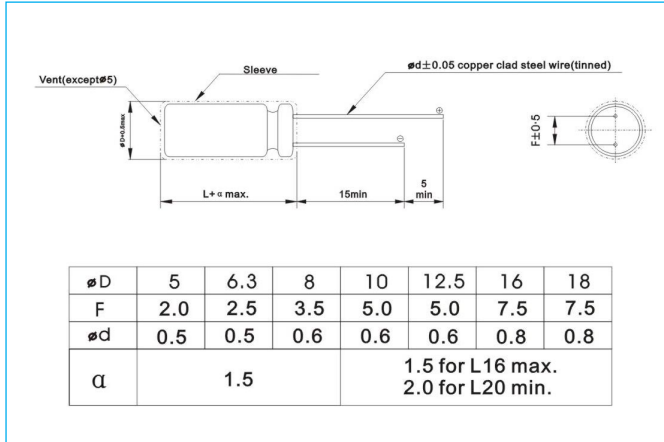
Series KZB Standard Nonpolar High Temperature Miniature Capacitors

Guarantees 2000 hours at 105°C

Outline Drawing

Unit:mm

Photo



Marking color: Black print on a red sleeve

Specifications

No.	Item	Performance																											
1	Temperature range (°C)	-40 to +105																											
2	Leakage Current (μA)	Less than $0.03CV$ or 3 whichever is larger (after two minute) C:Capacitance (μF); V:Rated voltage(V) 20°C																											
3	Capacitance tolerance (%)	± 20 (20°C, 120 Hz)																											
4	Tangent of loss angle ($\tan \delta$)	<table border="1"> <tr> <td>Rated Voltage (V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> <td rowspan="2">(20°C, 120Hz)</td> </tr> <tr> <td>$\tan \delta$ (max)</td> <td>0.25</td> <td>0.22</td> <td>0.18</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.09</td> </tr> </table> <p>0.02 is added to every 1000μF increase over 1000μF</p>	Rated Voltage (V)	6.3	10	16	25	35	50	63	100	(20°C, 120Hz)	$\tan \delta$ (max)	0.25	0.22	0.18	0.16	0.14	0.12	0.10	0.09								
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6	Endurance (105°C) (Applied ripple current)	<table border="1"> <tr> <td>Test time</td> <td>2000hrs(with the polarity inverted every 250 hrs$\phi 8$)</td> </tr> <tr> <td>Leakage current</td> <td>The Initial specified value or less</td> </tr> <tr> <td>Change in capacitance</td> <td>Within $\pm 20\%$ of initial value</td> </tr> <tr> <td>$\tan \delta$</td> <td>200% or less of initial specified value</td> </tr> </table>	Test time	2000hrs(with the polarity inverted every 250 hrs $\phi 8$)	Leakage current	The Initial specified value or less	Change in capacitance	Within $\pm 20\%$ of initial value	$\tan \delta$	200% or less of initial specified value																			
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7	Shelf life (105°C)	<table border="1"> <tr> <td>Test time</td> <td>1000hours</td> </tr> <tr> <td>Leakage current</td> <td>The Initial specified value or less</td> </tr> <tr> <td>Change in capacitance</td> <td>Within $\pm 15\%$ of initial value</td> </tr> <tr> <td>$\tan \delta$</td> <td>200% or less of initial specified value</td> </tr> </table> <p>Voltage application treatment : According to JIS</p>	Test time	1000hours	Leakage current	The Initial specified value or less	Change in capacitance	Within $\pm 15\%$ of initial value	$\tan \delta$	200% or less of initial specified value																			
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8	Applicable Standards	JIS C5101-1-4 1998(IEC60384-1 1992,-4 1985)																											

Coefficients of Frequency for Ripple Current

Capacitance(μF)	Frequency (Hz)			
	50(60)	120	1k	10k- 100k
6.3 to 16	0.8	1	1.1	1.2
25 to 35	0.8	1	1.5	1.7
50 to 100	0.8	1	1.6	1.9

KRM Miniature Aluminum Electrolytic Capacitors

Standard Ratings

KOSHIN PART NO./WV(V)	CAP (μ F)	SIZE (ϕ XL) (mm)	Tan δ	Ripple Current (mArms)
6.3V				
KZB-6.3V220MA	22	5X11	0.25	34
KZB-6.3V330MA	33	5X11	0.25	45
KZB-6.3V470MA	47	5X11	0.25	54
KZB-6.3V101MB	100	6.3X11	0.25	90
KZB-6.3V221MC	220	8X11,5	0.25	150
KZB-6.3V331MC	330	8X11.5	0.25	185
KZB-6.3V471MD	470	10X12.5	0.25	260
KZB-6.3V102MF	1000	10X20	0.25	460
KZB-6.3V222MH	2200	12.5X25	0.27	820
10V				
KZB-10V220MA	22	5X11	0.22	34
KZB-10V330MA	33	5X11	0.22	45
KZB-10V470MA	47	5X11	0.22	54
KZB-10V101MB	100	6.3X11	0.22	90
KZB-10V221MC	220	8X11.5	0.22	150
KZB-10V331ME	330	10X16	0.22	240
KZB-10V471ME	470	10X16	0.22	290
KZB-10V102MG	1000	12.5X20	0.22	510
KZB-10V222MP	2200	16X25	0.24	940
16V				
KZB-16V100MA	10	5X11	0.18	27
KZB-16V220MA	22	5X11	0.18	40
KZB-16V330MA	33	5X11	0.18	49
KZB-16V470MB	47	6.3X11	0.18	67
KZB-16V101MC	100	8X11.5	0.18	110
KZB-16V221MD	220	10X12.5	0.18	195
KZB-16V331ME	330	10X16	0.18	265
KZB-16V471MF	470	10X20	0.18	345
KZB-16V102MH	1000	12.5X25	0.18	605
KZB-16V222MR	2200	16X31.5	0.20	1070
25V				
KZB-25V100MA	10	5X11	0.16	27
KZB-25V220MB	22	6.3X11	0.16	46
KZB-25V330MB	33	6.3X11	0.16	56
KZB-25V470MB	47	6.3X11	0.16	67
KZB-25V101MC	100	8X11.5	0.16	110

KOSHIN PART NO./WV(V)	CAP (μ F)	SIZE (ϕ XL) (mm)	Tan δ	Ripple Current (mArms)
KZB-25V221ME	220	10X16	0.16	215
KZB-25V331MG	330	12.5X20	0.16	320
KZB-25V471MH	470	12.5X25	0.16	380
KZB-25V102MP	1000	16X25	0.16	670
KZB-25V222MV	2200	18X35.5	0.18	1140
35V				
KZB-35V4R7MA	4.7	5X11	0.14	21
KZB-35V100MA	10	5X11	0.14	30
KZB-35V220MB	22	6.3X11	0.14	51
KZB-35V330MC	33	8X11.5	0.14	72
KZB-35V470MC	47	8X11.5	0.14	86
KZB-35V101ME	100	10X16	0.14	160
KZB-35V221MG	220	12.5X20	0.14	290
KZB-35V331MG	330	12.5X20	0.14	350
KZB-35V471MH	470	12.5X25	0.14	465
KZB-35V102MR	1000	16X31.5	0.14	805
50V				
KZB-50VR10MA	0.1	5X11	0.12	4
KZB-50VR22MA	0.22	5X11	0.12	5
KZB-50VR33MA	0.33	5X11	0.12	6
KZB-50VR47MA	0.47	5X11	0.12	7
KZB-50V010MA	1	5X11	0.12	10
KZB-50V2R2MA	2.2	5X11	0.12	15
KZB-50V3R3MA	3.3	5X11	0.12	18
KZB-50V4R7MA	4.7	5X11	0.12	22
KZB-50V100MB	10	6.3X11	0.12	37
KZB-50V220MC	22	8X11.5	0.12	63
KZB-50V330MC	33	8X11.5	0.12	77
KZB-50V470MD	47	10X12.5	0.12	105
KZB-50V101MF	100	10X20	0.12	190
KZB-50V221MH	220	12.5X25	0.12	340
KZB-50V331MP	330	16X25	0.12	460
KZB-50V471MR	470	16X31.5	0.12	590
63V				
KZB-63VR10MA	0.1	5X11	0.10	5
KZB-63VR22MA	0.22	5X11	0.10	6
KZB-63VR33MA	0.33	5X11	0.10	6

KZB Miniature Aluminum Electrolytic Capacitors

Standard Ratings

KOSHIN PART NO./WV(V)	CAP (μ F)	SIZE (ϕ XL) (mm)	Tan δ	Ripple Current (mArms)
KZB-63VR47MA	0.47	5X11	0.10	8
KZB-63V010MA	1	5X11	0.10	11
KZB-63V2R2MA	2.2	5X11	0.10	16
KZB-63V3R3MA	3.3	5X11	0.10	20
KZB-63V4R7MB	4.7	6.3X11	0.10	24
KZB-63V100MB	10	6.3X11	0.10	40
KZB-63V220MC	22	8X11.5	0.10	68
KZB-63V330MD	33	10X12.5	0.10	98
KZB-63V470ME	47	10X16	0.10	130
KZB-63V101MG	100	12.5X20	0.10	225
KZB-63V221MP	220	16X25	0.10	405
KZB-63V331MR	330	16X31.5	0.10	535
KZB-63V471MV	470	18X35.5	0.10	680
100V				
KZB-100VR10MA	0.1	5X11	0.09	5
KZB-100VR22MA	0.22	5X11	0.09	6
KZB-100VR33MA	0.33	5X11	0.09	7
KZB-100VR47MA	0.47	5X11	0.09	8
KZB-100V010MA	1	5X11	0.09	12
KZB-100V2R2MB	2.2	6.3X11	0.09	20
KZB-100V3R3MB	3.3	6.3X11	0.09	25
KZB-100V4R7MB	4.7	6.3X11	0.09	30
KZB-100V100MC	10	8X11.5	0.09	50
KZB-100V220ME	22	10X16	0.09	97
KZB-100V330MF	33	10X20	0.09	140
KZB-100V470MG	47	12.5X20	0.09	170
KZB-100V101MP	100	16X25	0.09	300
KZB-100V221MT	220	16X35.5	0.09	510

Note : Allowable ripple current 120Hz at 105°C