

KRL Miniature Aluminum Electrolytic Capacitors

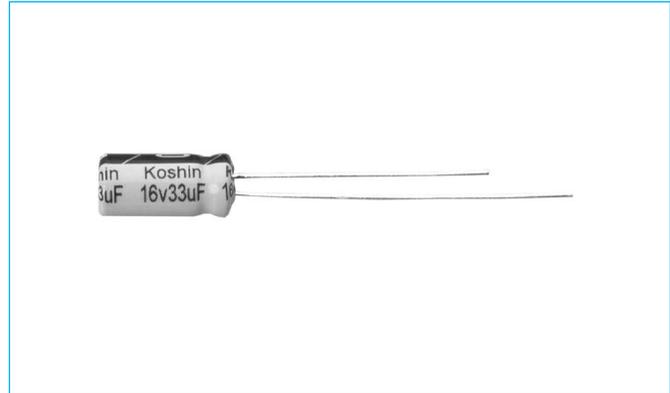
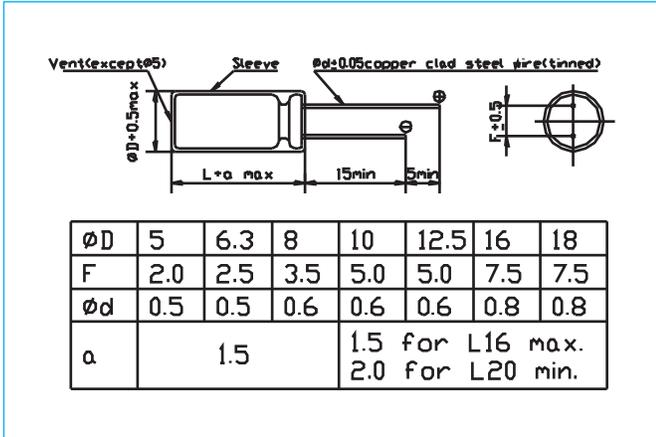
Series KRL For Low Leakage Current Uses

- Low leakage current (one minute value) 0.006CV or 0.5 (μA).

Outline Drawing

Unit:mm

Photo



Marking color: black print on a orange sleeve

Specifications

No.	Item	Performance																						
1	Temperature range (°C)	-40 to +85																						
2	Leakage Current (μA)	Less than 0.006 CV or 0.5 whichever is larger (after one minute). C: Capacitance (μF). Less than 0.002 CV or 0.3 whichever is larger (after two minutes). V: Voltage (V) 20°C																						
3	Capacitance tolerance (%)	±20 (20°C, 120 Hz)																						
4	Tangent of loss angle (tan δ)	<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 rowspan="3">(20°C, 120Hz)</td> </tr> <tr> <td>tan δ (max)</td> <td>More than 1μF</td> <td>0.20</td> <td>0.17</td> <td>0.13</td> <td>0.10</td> <td>0.08</td> </tr> <tr> <td></td> <td>1μF or less</td> <td colspan="5">0.06</td> </tr> </table>	Rated Voltage (V)	6.3	10	16	25	35	50	(20°C, 120Hz)	tan δ (max)	More than 1μF	0.20	0.17	0.13	0.10	0.08		1μF or less	0.06				
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6	Endurance (85°C) (Applied ripple current)	<table border="1"> <tr> <td>Test time</td> <td>2000hrs</td> </tr> <tr> <td>Leakage current</td> <td>Initial specified value or less</td> </tr> <tr> <td>Change in capacitance</td> <td>Within ±20% of initial value</td> </tr> <tr> <td>tan δ</td> <td>150% or less of initial specified value</td> </tr> </table>	Test time	2000hrs	Leakage current	Initial specified value or less	Change in capacitance	Within ±20% of initial value	tan δ	150% or less of initial specified value														
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7	Max. Storage temp. (85°C)	Test time: 500 hrs. Others have same as endurance in No. 6. Pretreatment performed (JIS C 5102).																						
8	Applicable Standards	JIS C 5102 and JIS C 5141																						

Coefficients of Frequency for Ripple Current

Rated Voltage (V)	Frequency (Hz)				
	CV(μF x V)	50 • 60	120	1k	10k • 100k
6.3 to 10	All CV value	0.8	1	1.1	1.2
16 to 25	-1000	0.8	1	1.5	1.7
	>1000	0.8	1	1.2	1.3
35 to 50	All CV value	0.8	1	1.6	1.9

Coefficients of Temperature for Ripple Current

Temperature (°C)	+70 or less	+85
Coefficients	1.35	1

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Standard Ratings

KOSHIN PART NO./VV(V)	CAP (μ F)	SIZE (ϕ XL) (mm)	Tan δ	Ripple Current (mArms)
6.3V				
KRL-6.3V221MD	220	10X12.5	0.20	260
KRL-6.3V331ME	330	10X16	0.20	350
KRL-6.3V471MF	470	10X20	0.20	460
KRL-6.3V102MH	1000	12.5X25	0.20	840
KRL-6.3V222MP	2200	16X25	0.20	1440
10V				
KRL-10V220MA	22	5X11	0.17	56
KRL-10V330MB	33	6.3X11	0.17	79
KRL-10V470MB	47	6.3X11	0.17	94
KRL-10V101MC	100	8X11.5	0.17	160
KRL-10V221ME	220	10X16	0.17	310
KRL-10V331MF	330	10X20	0.17	420
KRL-10V471MG	470	12.5X20	0.17	570
KRL-10V102MH	1000	12.5X25	0.17	910
KRL-10V222MR	2200	16X31.5	0.17	1710
16V				
KRL-16V100MA	10	5X11	0.13	43
KRL-16V220MB	22	6.3X11	0.13	74
KRL-16V330MB	33	6.3X11	0.13	90
KRL-16V470MC	47	8X11.5	0.13	127
KRL-16V101MD	100	10X12.5	0.13	220
KRL-16V221MF	220	10X20	0.13	390
KRL-16V331MG	330	12.5X20	0.13	550
KRL-16V471MG	470	12.5X20	0.13	650
KRL-16V102MP	1000	16X25	0.13	1210
KRL-16V222MV	2200	18X35.5	0.13	2200
25V				
KRL-25V4R7MA	4.7	5X11	0.10	34
KRL-25V100MB	10	6.3X11	0.10	57
KRL-25V220MC	22	8X11.5	0.10	99
KRL-25V330MC	33	8X11.5	0.10	121

KOSHIN PART NO./VV(V)	CAP (μ F)	SIZE (ϕ XL) (mm)	Tan δ	Ripple Current (mArms)
KRL-25V470MD	47	10X12.5	0.10	172
KRL-25V101ME	100	10X16	0.10	270
KRL-25V221MG	220	12.5X20	0.10	510
KRL-25V331MH	330	12.5X25	0.10	680
KRL-25V471MP	470	16X25	0.10	940
KRL-25V102MT	1000	16X35.5	0.10	1580
35V				
KRL-35V4R7MA	4.7	5X11	0.10	34
KRL-35V100MB	10	6.3X11	0.10	57
KRL-35V220MC	22	8X11.5	0.10	99
KRL-35V330MD	33	10X12.5	0.10	144
KRL-35V470MD	47	10X12.5	0.10	172
KRL-35V101MF	100	10X20	0.10	300
KRL-35V221MH	220	12.5X25	0.10	550
KRL-35V331MP	330	16X25	0.10	790
KRL-35V471MP	470	16X25	0.10	940
KRL-35V102MV	1000	18X35.5	0.10	1690
50V				
KRL-50VR47MA	0.47	5X11	0.06	14
KRL-50V010MA	1	5X11	0.06	20
KRL-50V2R2MA	2.2	5X11	0.08	26
KRL-50V3R3MA	3.3	5X11	0.08	32
KRL-50V4R7MB	4.7	6.3X11	0.08	43
KRL-50V100MC	10	8X11.5	0.08	75
KRL-50V220MD	22	10X12.5	0.08	131
KRL-50V330ME	33	10X16	0.08	176
KRL-50V470ME	47	10X16	0.08	210
KRL-50V101MG	100	12.5X20	0.08	380
KRL-50V221MP	220	16X25	0.08	720
KRL-50V331MR	330	16X31.5	0.08	970
KRL-50V471MT	470	16X35.5	0.08	1210

Note : Allowable Ripple Current 120Hz at 85°C