

LK Low Leakage Current, Wide Temperature Range Series

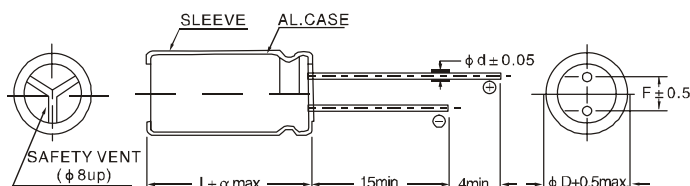
- Low leakage current series
- Wide operating temperature range of $-40\sim+105^{\circ}\text{C}$
- For Hi-Fi sound audio systems



• SPECIFICATIONS

Item	Characteristics												
Operating Temperature Range	$40\sim+105^{\circ}\text{C}$												
Rated Working Voltage Range	10~50V.DC												
Capacitance Tolerance	$\pm 20\%$ (M)at 120Hz.25 $^{\circ}\text{C}$												
Leakage Current (max.)	I= 0.002CV or 0.4 μA whichever is greater after 2 minutes. I: Leakage Current (μA) C: Nominal Capacitance (μF) V: Rated Working Voltage(V)												
Dissipation Factor ($\tan \delta$) (at 120Hz, 25 $^{\circ}\text{C}$) (max.)	When nominal capacitance is over 1000 μF , $\tan \delta$ shall be added 0.03 to the listed value with increase of every 1000 μF . <table border="1"> <thead> <tr> <th>WV</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> </tr> </thead> <tbody> <tr> <td>$\tan \delta$</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> </tr> </tbody> </table>	WV	10	16	25	35	50	$\tan \delta$	0.20	0.16	0.14	0.12	0.10
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Low Temperature Stability (Impedance ratio at 120Hz)	<table border="1"> <thead> <tr> <th>WV</th> <th>10</th> <th>16</th> <th>25~50</th> </tr> </thead> <tbody> <tr> <td>Z(-25$^{\circ}\text{C}$)/Z(+25$^{\circ}\text{C}$)</td> <td>2</td> <td>2</td> <td>1.5</td> </tr> <tr> <td>Z(-40$^{\circ}\text{C}$)/Z(+25$^{\circ}\text{C}$)</td> <td>4</td> <td>3</td> <td>2</td> </tr> </tbody> </table>	WV	10	16	25~50	Z(-25 $^{\circ}\text{C}$)/Z(+25 $^{\circ}\text{C}$)	2	2	1.5	Z(-40 $^{\circ}\text{C}$)/Z(+25 $^{\circ}\text{C}$)	4	3	2
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Load Life	After 1000 hours application of W.V. at 105 $^{\circ}\text{C}$ the capacitor shall meet the following limits. <table border="1"> <tbody> <tr> <td>Capacitance Change</td> <td>$\leq \pm 15\%$ of the initial specified value.</td> </tr> <tr> <td>Dissipation Factor</td> <td>$\leq 150\%$ of the initial specified value.</td> </tr> <tr> <td>Leakage current</td> <td>$\leq 200\%$ the initial specified value.</td> </tr> </tbody> </table>	Capacitance Change	$\leq \pm 15\%$ of the initial specified value.	Dissipation Factor	$\leq 150\%$ of the initial specified value.	Leakage current	$\leq 200\%$ the initial specified value.						
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Shelf Life(at 105 $^{\circ}\text{C}$)	After 500 hours no load test, leakage current, capacitance and $\tan \delta$ are same as load life value												
Reference Standard	JISC-5141												

• DRAWING(Unit:mm)



ϕD	5	6.3	8	10
F	2.0	2.5	3.5	5.0
ϕd	0.5	0.5	0.5	0.6
α	1.0			1.5

• DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

Cap.(μF)	WV		10		16		25		35		50	
	SIZE	R.C.	SIZE	R.C.	SIZE	R.C.	SIZE	R.C.	SIZE	R.C.	SIZE	R.C.
0.1											5×11	4.4
0.22											5×11	6.5
0.33											5×11	8.0
0.47											5×11	9.6
0.68											5×11	11
1.0											5×11	17
2.2											5×11	21
3.3											5×11	25
4.7											5×11	30
6.8											5×11	36
10											5×11	44
15									6.3×11	54	6.3×11	62
22							5×11	65	6.3×11	75	6.3×11	75
33					5×11	65	6.3×11	92	6.3×11	92	8×12	109
47	5×11	70	6.3×11	90	6.3×11	110	8×12	129	8×12	129	8×12	129
68	6.3×11	96	6.3×11	108	8×12	156	8×12	156	8×12	156	8×14	181
100	6.3×11	117	8×12	154	8×12	189	10×12	219				
150	8×12	169	8×12	189	8×14	269						
220	8×12	205	8×14	269								
330	8×14	291										

Ripple current (m A rms) at 105 $^{\circ}\text{C}$,120Hz
 Case size $\phi D \times L$ (mm)