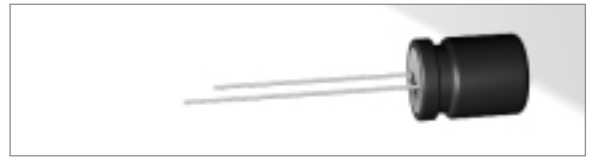


LEK Series 105 °C LOW ESR

Features

- Used in mother board, computer peripheral, etc.
- Load life 2000~5000 Hrs at 105 °C
- Safety vent construction design
- For detail specifications, please refer to Engineering Bulletin №. E127



Specifications

Item	Performance Characteristics																											
Operating Temperature Range	-40 to +105 °C																											
Rated voltage Range	4.7 to 4700 uF																											
Capacitance Range	6.3 to 100 VDC																											
Capacitance Tolerance	±20 % (120 Hz, +20 °C)																											
Leakage Current (+20 °C, max.)	$1 \leq 0.001 CV$ or 3 (uA) After 2 minutes whichever is greater measured with rated working voltage applied.																											
Dissipation Factor (tan δ)	For capacitance > 1000 uF, add 2 % per another 1000 uF in crease (+ 20 °C, at 120 Hz)																											
	<table border="1"> <thead> <tr> <th>Working Voltage (VDC)</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> </tr> </thead> <tbody> <tr> <td>D.F.(%) max</td> <td>22</td> <td>19</td> <td>16</td> <td>14</td> <td>12</td> <td>10</td> <td>9</td> <td>8</td> </tr> </tbody> </table>	Working Voltage (VDC)	6.3	10	16	25	35	50	63	100	D.F.(%) max	22	19	16	14	12	10	9	8									
Working Voltage (VDC)	6.3	10	16	25	35	50	63	100																				
D.F.(%) max	22	19	16	14	12	10	9	8																				
Low Temperature Characteristics (120 Hz)	Impedance ratio max.																											
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Working Voltage (VDC)	6.3	10	16	25	35	50	63	100																				
Z-25 °C/Z+20 °C	2	2	2	2	2	2	2	2																				
Z-40 °C/Z+20 °C	3	3	3	3	3	3	3	3																				
Load Life	Test conditions Duration time: 2000 Hrs Ambient temperature: +105 °C Applied voltage: Rated DC working voltage After test requirements: at + 20 % Capacitance change: $\leq \pm 20\%$ of the initial measured value Dissipation Factor: $\leq 200\%$ of the initial specified value Leakage current: \leq The initial specified value																											
Shelf Life	Test conditions Duration time: 500 Hrs Ambient temperature: + 105°C Applied voltage: None After test requirements at +20 °C: Some limits as Load life. Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes.																											

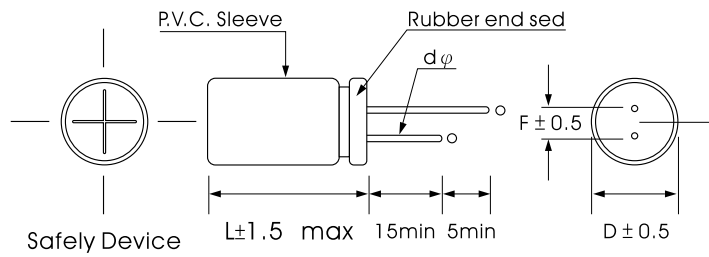
Multiplier for Ripple Current vs. Frequency

CAP(μF)\Hz		50(60)	120	400	1K	10K	50K-100K
Multiplier	CAP ≤ 10	0.47	0.59	0.76	0.85	0.97	1.0
	10 < CAP ≤ 100	0.52	0.62	0.80	0.89	0.97	1.0
	100 < CAP ≤ 1000	0.58	0.72	0.84	0.90	0.98	1.0
	1000 < CAP	0.63	0.78	0.87	0.91	0.98	1.0

Multiplier for Ripple Current vs. Temperature

Temperature °C	45	60	70	85	95	105
Multiplier	1.8	1.50	1.30	1.0	1.20	1.0

Diagram of Dimensions: (Unit: mm)



Dφ	5	6.3	8	10	13	16	18
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
dφ	0.5		0.6		0.8		

Case Size

φD X L (mm)

W.V.(SV) μF	6.3 (8)	10(13)	16 (20)	25 (32)	35 (44)	50 (63)	63 (79)	100 (125)
4.7						→	5X11	5X11
10						→	5X11	6.3X11
22					→	5X11	6.3X11	8X11.5
33				→	5X11	6.3X11	6.3X11	8X16
47		→		5X11	6.3X11	8X11.5	8X11.5	10X12.5
100	5X11	5X11	6.3X11	6.3X11	8X11.5	8X11.5	10X12.5	10X25
220	6.3X11	6.3X11	8X11.5	8X11.5	8X16 10X12.5	10X16	10X25	13X30 16X20
330	6.3X11	8X11.5	8X11.5	8X16 10X12.5	10X16	10X25	13X25	13X40
470	8X11.5	8X11.5	8X16 10X12.5	8X20 10X16	10X20	13X20	13X30 16X20	16X35.5 18X31.5
1000	10X12.5	8X20 10X16	10X20	13X20	13X25	16X25	16X35.5 18X31.5	-
2200	10X25	13X20	13X25	13X25	-	-	-	-
3300	13X20	13X25	13X25	-	-	-	-	-
4700	13X30	13X35	-	-	-	-	-	-

Maximum Ripple Current

(mA, 100 KHz at 105°C)

W.V.(SV) uF	6.3 (8)	10 (13)	16 (20)	25 (32)	35 (44)	50 (63)	63 (79)	100 (125)
4.7	-	-	-	-	-	-	-	105
10	-	-	-	-	-	-	135	170
22	-	-	-	-	-	-	200	320
33	-	-	-	-	230	-	270	400
47	-	-	200	240	340	-	400	450
100	200	242	360	410	560	200	720	890
220	360	390	575	750	1000 1060	360	1315	1420 1270
330	395	540	740	990	1400	395	1870	1650
470	600	750	990 1000	1260 1415	1850	600	2225 1970	1900 1700
1000	1000	1220 1400	1840	2340	2780	1000	2780 3230	-
2200	2160	2370	2750	3420	-	2160	-	-
3300	2290	2720	3490	-	-	2290	-	-
4700	3200	3450	-	-	-	3200	-	-

Maximum Impedance

(Ω, 100 Hz at +105°C)

W.V.(SV) uF	6.3 (8)		10 (13)		16 (8)		16 (8)		16 (8)		16 (8)		16 (8)		16 (8)	
	+20°C	-10°C	+20°C	-10°C	+20°C	-10°C	+20°C	-10°C	+20°C	-10°C	+20°C	-10°C	+20°C	-10°C	+20°C	-10°C
4.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.60	5.90
10	-	-	-	-	-	-	-	-	-	-	-	-	0.95	3.80	0.70	2.50
22	-	-	-	-	-	-	-	-	-	0.35	1.20	0.75	2.90	0.48	2.10	
33	-	-	-	-	-	-	-	0.32	1.1	0.20	1.10	0.38	1.45	0.31	1.35	
47	-	-	-	-	0.40	1.20	0.35	1.20	0.20	0.50	0.09	1.00	0.22	0.85	0.25	1.00
100	0.40	1.30	0.28	1.10	0.25	0.55	0.15	0.45	0.09	0.26	0.056	0.22	0.14	0.50	0.12	0.50
220	0.25	0.90	0.15	0.45	0.14	0.40	0.075	0.25	0.056 0.052	0.17 0.16	0.052	0.12	0.075	0.30	0.065 0.075	0.25 0.25
330	0.15	0.45	0.11	0.38	0.080	0.25	0.056 0.052	0.17 0.16	0.038	0.12	0.038	0.09	0.045	0.15	0.045	0.014
470	0.095	0.25	0.075	0.25	0.062 0.058	0.17 0.16	0.04 0.038	0.13 0.12	0.022	0.07	0.022	0.07	0.041 0.043	0.14 0.14	0.032 0.038	0.010 0.012
1000	0.055	0.15	0.050 0.042	0.15 0.13	0.035	0.07	0.02	0.055	0.019	0.044	0.019	0.058	0.026 0.028	0.065 0.068	-	-
2200	0.025	0.065	0.025	0.05	0.022	0.045	0.015	0.038	-	-	-	-	0.026 0.028	-	-	-
3300	0.026	0.055	0.021	0.045	0.018	0.04	-	-	-	-	-	-	-	-	-	-
4700	0.02	0.04	0.019	0.04	-	-	-	-	-	-	-	-	-	-	-	-