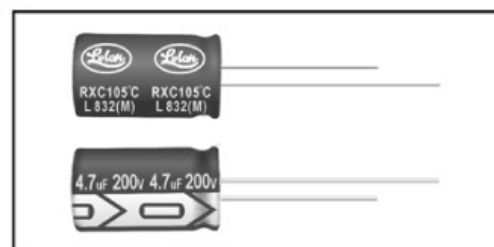


Feature

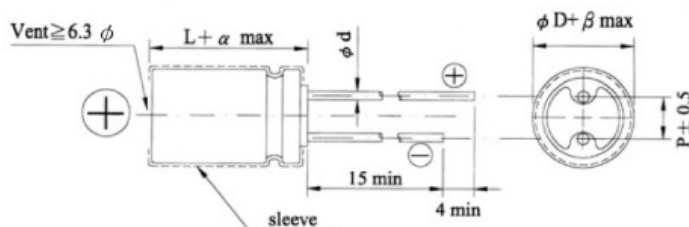
- 105°C, 2,000 ~ 3,000 hours assured
- Low ESR, suitable for switching power supplies, UPS
- Smaller size with large permissible ripple current
- RoHS Compliance



SPECIFICATIONS

Items	Performance																																		
Operating Temperature Range	-40℃ ~ +105℃																																		
Rated Voltage Range	160 ~ 450V																																		
Capacitance Tolerance	±20% (at 120Hz, 20℃)																																		
Leakage Current (at 20℃)	<table><tr><td>Time</td><td colspan="6">After 5 minutes</td></tr><tr><td>Leakage Current</td><td colspan="3">CV ≤ 1,000 I = 0.03CV(μA)</td><td colspan="3">CV > 1,000 I = 0.02CV(μA)</td></tr></table>							Time	After 5 minutes						Leakage Current	CV ≤ 1,000 I = 0.03CV(μA)			CV > 1,000 I = 0.02CV(μA)																
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Dissipation Factor (Tan δ at 120Hz, 20℃)	<table><tr><td>Rated Voltage</td><td>160</td><td>200</td><td>250</td><td>350</td><td>400</td><td>450</td></tr><tr><td>Tan δ (max)</td><td>0.20</td><td>0.20</td><td>0.20</td><td>0.24</td><td>0.24</td><td>0.24</td></tr></table>							Rated Voltage	160	200	250	350	400	450	Tan δ (max)	0.20	0.20	0.20	0.24	0.24	0.24														
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Low Temperature Characteristics (at 120Hz)	Impedance ratio shall not exceed the values given in the table below. <table><tr><td colspan="2">Rated Voltage</td><td>160</td><td>200</td><td>250</td><td>350</td><td>400</td><td>450</td></tr><tr><td rowspan="2">Impedance Ratio</td><td>Z(-25℃)/Z(+20℃)</td><td>3</td><td>3</td><td>3</td><td>3</td><td>5</td><td>6</td></tr><tr><td>Z(-40℃)/Z(+20℃)</td><td>4</td><td>4</td><td>4</td><td>4</td><td>6</td><td>-</td></tr></table>							Rated Voltage		160	200	250	350	400	450	Impedance Ratio	Z(-25℃)/Z(+20℃)	3	3	3	3	5	6	Z(-40℃)/Z(+20℃)	4	4	4	4	6	-					
Rated Voltage		160	200	250	350	400	450																												
Impedance Ratio	Z(-25℃)/Z(+20℃)	3	3	3	3	5	6																												
	Z(-40℃)/Z(+20℃)	4	4	4	4	6	-																												
Load Life Test	<table><tr><td>Test Time</td><td colspan="6">2,000 hrs for φD ≤ 10 mm 3,000 hrs for φD ≥ 12.5 mm</td></tr><tr><td>Capacitance Change</td><td colspan="6">Within ±20% of initial value</td></tr><tr><td>Dissipation Factor</td><td colspan="6">Less than 200% of specified value</td></tr><tr><td>Leakage Current</td><td colspan="6">Within specified value</td></tr></table> * The above specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage applied with rated ripple current for 2,000/3,000 hrs at 105℃.							Test Time	2,000 hrs for φD ≤ 10 mm 3,000 hrs for φD ≥ 12.5 mm						Capacitance Change	Within ±20% of initial value						Dissipation Factor	Less than 200% of specified value						Leakage Current	Within specified value					
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Dissipation Factor	Less than 200% of specified value																																		
Leakage Current	Within specified value																																		
Shelf Life Test	<table><tr><td>Test Time</td><td colspan="6">1,000 Hrs</td></tr><tr><td>Capacitance Change</td><td colspan="6">Within ±20% of initial value</td></tr><tr><td>Dissipation Factor</td><td colspan="6">Less than 200% of specified value</td></tr><tr><td>Leakage Current</td><td colspan="6">Less than 500% of specified value</td></tr></table> * The above specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 1,000 hrs at 105℃ without voltage applied. The rated voltage shall be applied to the capacitors before the measurements (Refer to JIS C 5101-4 4.1).							Test Time	1,000 Hrs						Capacitance Change	Within ±20% of initial value						Dissipation Factor	Less than 200% of specified value						Leakage Current	Less than 500% of specified value					
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Ripple Current & Frequency Multipliers	<table><tr><th>Freq.(Hz) Cap. (μF)</th><th>120</th><th>1K</th><th>10K</th><th>100K</th></tr><tr><td>1 to 82</td><td>1</td><td>1.75</td><td>2.25</td><td>2.5</td></tr><tr><td>100 up</td><td>1</td><td>1.67</td><td>2.05</td><td>2.25</td></tr></table>							Freq.(Hz) Cap. (μF)	120	1K	10K	100K	1 to 82	1	1.75	2.25	2.5	100 up	1	1.67	2.05	2.25													
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DIAGRAM OF DIMENSIONS



LEAD SPACING AND DIAMETER Unit: mm

ϕD	6.3	8	10	12.5	16	18
P	2.5	3.5	5.0	5.0	7.5	7.5
ϕd	0.5	0.6			0.8	
α	1.0		1.5			
β	0.5					

DIMENSION & PERMISSIBLE RIPPLE CURRENT

Dimension: $\phi D \times L$ (mm)

Ripple Current: mA/rms, 105°C

μF	VDC Contents	160V (2C)			200V (2D)			250V (2E)			350V (2V)			400V (2G)		
		$\phi D \times L$		Ripple Current	$\phi D \times L$		Ripple Current	$\phi D \times L$		Ripple Current	$\phi D \times L$		Ripple Current	$\phi D \times L$		Ripple Current
		120Hz	100KHz		120Hz	100KHz		120Hz	100KHz		120Hz	100KHz		120Hz	100KHz	
1											8×11.5	24	61			
1.5														10×12.5	36	89
2.2								8×11.5	37	92	10×12.5	43	107	10×16	48	120
3.3		8×11.5	38	95	8×11.5	41	101	10×12.5	45	113	10×16	59	147	10×20	65	161
4.7		8×11.5	45	113	10×12.5	57	143	10×16	84	209	10×20	77	194	10×20	77	194
10		10×16	87	217	10×16	94	235	10×20	114	285	10×20	113	281	10×20	113	281
22		10×16	122	304	10×20	153	383	12.5×20	230	574	12.5×20	189	473	12.5×25	212	529
33		10×20	171	428	12.5×20	216	540	12.5×25	313	780	12.5×25	255	637	12.5×25	255	637
47		12.5×25	266	664	12.5×20	225	563	12.5×25	315	788	16×25	329	821	16×31.5	351	878
68		12.5×25	319	798	12.5×25	341	853	16×25	450	1070	16×31.5	380	900	16×31.5	400	960
100		12.5×25	383	861	16×25	437	982	16×31.5	477	1073	16×31.5	404	908	18×31.5	429	965
150		16×25	535	1203	16×31.5	590	1328	18×31.5	624	1404						
220		16×31.5	594	1337	18×35.5	752	1691	18×40	761	1712						
330		18×35.5	738	1661												

μF	VDC Contents	450V (2W)		
		$\phi D \times L$		Ripple Current
		120Hz	100KHz	
1.5		10×12.5	36	89
2.2		10×16	48	120
3.3		10×20	65	161
4.7		12.5×20	88	219
10		12.5×25	144	360
22		16×25	239	596
33		16×31.5	324	810
47		18×31.5	417	1042
68		18×35.5	520	1300