

LL Series Low Leakage Current 105°C

LL 系列

Features

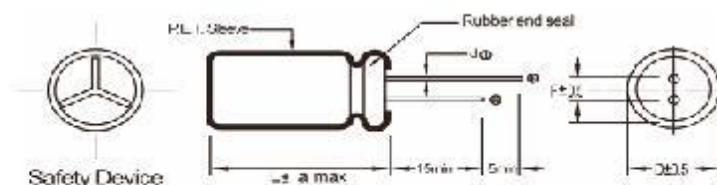
- Extremely low and stable leakage current characteristic
- Load life 2000 hrs at 105°C
- RoHS Compliant



Specifications

Item	Performance Characteristics							
Operating Temp. Range	-40~+105°C							
Rate Voltage Range	6.3 to 63 VDC							
Capacitance Range	0.1 to 2200 μ F							
Capacitance Tolerance	$\pm 20\%$ (120Hz, 20°C)							
Leakage Current	$I_L \leq 0.002CV$ or $0.4 (\mu A)$, After 2 minutes whichever is greater measured with rated working voltage applied							
Dissipation Factor(Tan α) (max, 120Hz, 20°C)	W.V(VDC)	6.3	10	16	25	35	50	63
	D.F(%)	24	20	18	16	14	12	10
Low Temp. Characteristics (Max Impedance Ratio) (120Hz)	W.V(VDC)	6.3	10	16	25	35	50	63
	$Z_{A-25^\circ C}/Z_{A+25^\circ C}$	4	3	3	2	2	2	2
	$Z_{A-80^\circ C}/Z_{A+25^\circ C}$	10	6	6	4	4	4	3
Load Life	Test conditions Duration time: 2000hrs Ambient temperature: +105°C Applied voltage: Rated DC working voltage After test requirements at +20°C Capacitance change: $\leq \pm 20\%$ of the initial measured value Dissipation factor: $\leq 150\%$ of the initial specified value Leakage current: $\leq$ the initial specified value							
Shelf Life	Test conditions Duration time: 1000hrs Ambient temperature: +105°C Applied voltage: None After test requirements at +20°C : Same limits as Load life. Pre-treatment for measurements shall be conducted after application of DC working voltage for 30minutes							
Industrial	JIS C-5101-4(IEC30384-4)							

Diagram of dimensions(cunit:mm)



Φ D	5	6.3	8	10	13
Φd	0.5	0.5	0.5	0.6	0.6
F	2.0	2.5	3.5	5.0	5.0
L	L ± 1.0 max			L ± 1.5 max	

Multiplier for ripple current vs frequency

Cap. (μ F)	Fre.(Hz)	50(60)	120	1K	100K
0.1~10		0.80	1.0	1.45	1.70
22~100		0.80	1.0	1.36	1.53
220~1000		0.80	1.0	1.35	1.38

Multiplier for ripple current vs Temperature

Temp.(°C)	45	60	85	105
Multiplier	1.50	1.30	1.20	1.00

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Case Size

WV(V) Cap(μF)	6.3(7.2)		10 (13)		16(20)		25(32)		35 (44)		50 (63)		63 (72)	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
0.1											5*11	8.8	5*11	8.8
0.22											5*11	8.8	5*11	8.8
0.33											5*11	8.8	5*11	8.8
0.47											5*11	12	5*11	12
1											5*11	17	5*11	17
2.2											5*11	24	5*11	24
3.3											5*11	29	5*11	32
4.7							5*11	32	5*11	33	5*11	36	5*11	39
10					5*11	39	5*11	43	5*11	48	5*11	52	6.3*12	58
22	5*11	36	5*11	50	5*11	62	5*11	65	6.3*12	71	6.3*12	77	6.3*12	94
33	5*11	44	5*11	66	5*11	68	5*11	76	6.3*12	83	6.3*12	99	8*12	110
47	5*11	53	5*11	75	5*11	105	6.3*12	116	6.3*12	125	8*12	138	8*12	152
100	5*11	74	5*11	104	6.3*12	138	8*12	149	8*12	187	10*13	217	10*17	260
220	6.3*12	131	8*12	193	8*12	220	10*13	246	10*13	330	10*20	380	13*21	440
330	6.3*12	161	8*12	256	8*12	268	10*13	352	10*17	440	13*21	506	13*25	594
470	8*12	242	8*12	319	10*13	407	10*17	484	13*21	590	13*25	705		
1000	10*13	390	10*17	605	10*20	704	13*21	847	13*25	1012				
2200	13*21	665	13*21	860	13*25	890								

Ripple Current (mA,rms) at 105°C, 120Hz

- For special designing requirment,please contact us.