

SL series Small long life 2000hours products

- Load Life :105°C 2000 hours
- The product size of $\Phi 4 \times 5L \sim \Phi 8 \times 7L$
- The most suitable for long-life,high reliability etc
- ROHS compliant

■ SPECIFICATIONS

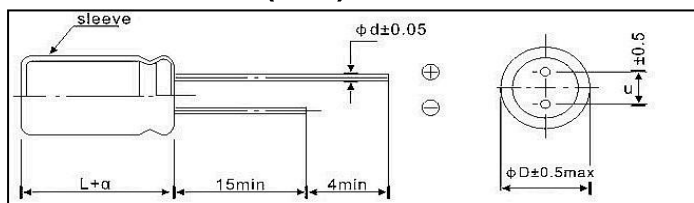
Item	Performance Characteristics																
Operating Temperature Range	-40~105°C																
Rated Voltage Range	6.3~50V																
Capacitance Range	1~270uF																
Capacitance Tolerance	±20% at 120Hz,20°C																
Leakage Current (MAX)	$I \leq 0.03CV$ or 3uA whichever is greater. (after 2 minutes application of rated voltage) I=Leakage Current (uA) ,C=Nominal Capacitance (uF) ,V=Rated Voltage (V)																
Dissipation Factor (tan δ)	When nominal capacitance is over 1000uF,tan δ shall be added 0.02 to the listed value with increase of every 1000uF. <table border="1"> <thead> <tr> <th>Rated voltage(V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th></th> </tr> </thead> <tbody> <tr> <td>Tan δ</td> <td>0.50</td> <td>0.40</td> <td>0.35</td> <td>0.30</td> <td>0.25</td> <td>0.25</td> <td>MAX (20°C 120Hz)</td> </tr> </tbody> </table>	Rated voltage(V)	6.3	10	16	25	35	50		Tan δ	0.50	0.40	0.35	0.30	0.25	0.25	MAX (20°C 120Hz)
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Low Temperature Stability Impedance Ratio	Measurement frequency:120Hz <table border="1"> <thead> <tr> <th>Rated voltage(V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> </tr> </thead> <tbody> <tr> <td>Z(-25°C) / Z(+20°C)</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> </tbody> </table>	Rated voltage(V)	6.3	10	16	25	35	50	Z(-25°C) / Z(+20°C)	4	3	2	2	2	2		
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Load Life	After 2000 hours application of rated voltage at 105°C capacitors meet the characteristics requirements listed at following <table border="1"> <tbody> <tr> <td>Leakage Current</td> <td>Specified value or less</td> </tr> <tr> <td>Capacitance Change</td> <td>Within ±20% of initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td>200% or less of specified value</td> </tr> </tbody> </table>	Leakage Current	Specified value or less	Capacitance Change	Within ±20% of initial value	Dissipation Factor	200% or less of specified value										
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Shelf Life	After leaving capacitors under no load at 105°C for 1000hours and applying voltage according to JIS C-5102 4-3,they meet the specified value for load life characteristics listed above.																
Standard	According to JIS C-5141																

■ MULTIPLIER FOR RIPPLE CURRENT

W.V	Frequency(Hz)				
	Cap(uF)	120	1k	10k~	100k
6.3~50	1~3.3	0.20	0.66	0.90	1.00
	4.7~6.8	0.35	0.70	0.90	1.00
	10~150	0.40	0.75	0.90	1.00
	220~270	0.50	0.85	0.94	1.00

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■DIMENSIONS(mm)



ΦD	4	5	6.3	8
Φd	0.45	0.5		
F	1.5	2.0	2.5	3.5
ΦD	ΦD±0.5max			
L	L+1.0max			

■STANDARD SIZE PERMISSIBLE RIPPLE CURRENT

Size ΦD×L(mm)Ripple Current(mA 105°C,100kHz)r.m.s
Max impedance (Ω) at 20°C 100kHz

Cap(uF)	W.V	6.3			10			16		
		SIZE	Ripple	Impedance	SIZE	Ripple	Impedance	SIZE	Ripple	Impedance
15								4×5	37	5.4
22					4×5	37	5.4	4×7 5×5	44 57	4.5 3.1
33		4×5	37	5.4	4×7 5×5	44 57	4.5 3.1	5×7	70	2.5
47		4×7	44	4.5	5×7	70	2.5	6.3×5	82	1.7
56		5×5	57	3.1						
68					6.3×5	82	1.7	6.3×7	116	1.3
82		5×7	70	2.5						
100		6.3×5	82	1.7	6.3×7	116	1.3	8×5	110	1.5
150		6.3×7	116	1.3	8×5	110	1.5	8×7	162	0.9
220		8×5	110	1.5	8×7	162	0.9			
270		8×7	162	0.9						

Size ΦD×L(mm)Ripple Current(mA 105°C,100kHz)r.m.s

Cap(uF)	W.V	25			35			50		
		SIZE	Ripple	Impedance	SIZE	Ripple	Impedance	SIZE	Ripple	Impedance
1.0								4×5	18	19
2.2								4×5	22	14
3.3								4×5	26	11
4.7					4×5	37	5.4	4×7 5×5	29 40	9 6
6.8					4×7	44	4.5	5×7	50	4.8
10		4×5	37	5.4	5×5 5×7	57 70	3.1 2.5	6.3×5	63	2.9
15		4×7 5×5	44 57	4.5 3.1				6.3×7	90	2.2
22		5×7	70	2.5	6.3×5 6.3×7	82 116	1.7 1.3	8×5 8×7	84 120	2.6 1.6
33		6.3×5	82	1.7	8×5	110	1.5			
47					8×7	162	0.9			
56		6.3×7	116	1.3						
68		8×5	110	1.5						
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