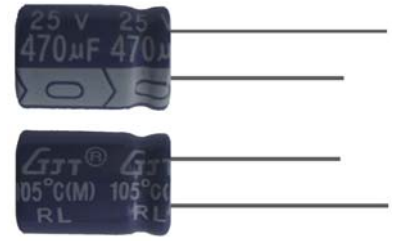


RL Low Impedance, Longer life 长寿命高频低阻抗品

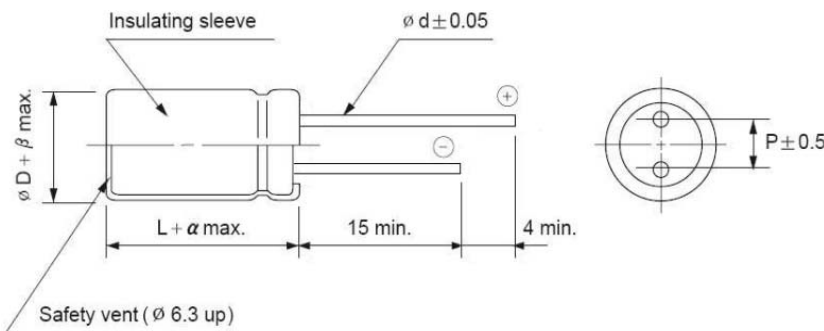
- 105°C, 6000 hours assured.
105°C, 6000 小时寿命品。
- Low Impedance, High ripple current.
高频低阻抗, 高纹波
- Suitable for highly reliable switching power supply.
适用于电源适配器



Specifications 特性表

Items 项目	Characteristics 主要特性																											
Rated Voltage Range 额定工作电压范围	6.3 ~ 100V _{dc}																											
Category Temperature Range 使用温度范围	-40 ~ +105°C																											
Capacitance Tolerance 静电容量允许偏差	±20% (M), at 20°C, 120Hz																											
Leakage Current 漏电流, 20°C环境下施加工作电压 2 分钟后. (at 20°C, After 2 minutes)	I ≤ 0.01CV or 3µA, whichever is greater 漏电流 ≤ 0.01CV or 3µA, 取较大值 Where, I : Max. leakage current (漏电流, µA), C : Nominal capacitance (静电容量, µF), V : Rated voltage (额定电压 V)																											
Dissipation Factor (Tanδ, at 20°C, 120Hz) 损耗角正切值 (测试条件为 20°C, 120Hz)	<table border="1"> <tr> <td>Rated voltage (V) 额定工作电压</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> </tr> <tr> <td>Tanδ (Max.) 最大损耗角正切</td> <td>0.20</td> <td>0.18</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.08</td> <td>0.08</td> </tr> </table> <p>When nominal capacitance exceeds 1,000µF, add 0.02 to the value above for each 1,000µF increase. 静电容量大于 1000µF, 每增加 1000µF, 损耗角正切增加 0.02</p>	Rated voltage (V) 额定工作电压	6.3	10	16	25	35	50	63	100	Tanδ (Max.) 最大损耗角正切	0.20	0.18	0.16	0.14	0.12	0.10	0.08	0.08									
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Low Temperature Characteristics (Max. Impedance Ratio, 120Hz) 低温特性最大阻抗比	<table border="1"> <tr> <td>Rated voltage (V) 额定工作电压</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> </tr> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>8</td> <td>6</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>18</td> <td>16</td> <td>12</td> <td>10</td> <td>8</td> <td>8</td> <td>6</td> <td>6</td> </tr> </table>	Rated voltage (V) 额定工作电压	6.3	10	16	25	35	50	63	100	Z(-25°C)/Z(20°C)	8	6	4	4	3	3	3	3	Z(-40°C)/Z(20°C)	18	16	12	10	8	8	6	6
Rated voltage (V) 额定工作电压	6.3	10	16	25	35	50	63	100																				
Z(-25°C)/Z(20°C)	8	6	4	4	3	3	3	3																				
Z(-40°C)/Z(20°C)	18	16	12	10	8	8	6	6																				
Endurance 耐久性	<p>The following specification shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the ripple current is applied for the specified period of time at 105°C. 在 105°C 环境中, 不超过额定电压的范围下叠加额定纹波电流, 连续加载规定时间的额定电压后, 待温度恢复到 20°C 进行测量时, 应满足以下要求。</p> <table border="1"> <tr> <td>Test Time 测试时间</td> <td>6,000Hrs (Φ5~Φ6.3: 4000Hrs; Φ8: 5000Hrs)</td> </tr> <tr> <td>Capacitance Change 静电容量变化率</td> <td>Within ±20% initial value 初始值的±20%以内</td> </tr> <tr> <td>Dissipation Factor 损耗角正切</td> <td>≤200% of specified value 不大于规范值的 200%</td> </tr> <tr> <td>Leakage Current 漏电流</td> <td>≤The initial specified value 不大于规范值</td> </tr> </table>	Test Time 测试时间	6,000Hrs (Φ5~Φ6.3: 4000Hrs; Φ8: 5000Hrs)	Capacitance Change 静电容量变化率	Within ±20% initial value 初始值的±20%以内	Dissipation Factor 损耗角正切	≤200% of specified value 不大于规范值的 200%	Leakage Current 漏电流	≤The initial specified value 不大于规范值																			
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Leakage Current 漏电流	≤The initial specified value 不大于规范值																											
Shelf Life 高温贮存	<p>The above specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 105°C without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of IEC 60384-4. 在 105°C 环境中, 无负荷放置 1,000 小时后待温度恢复到 20°C, 进行试验前处理(IEC 60384-4 4.1 项)后进行测量时, 应满足以下要求。</p> <table border="1"> <tr> <td>Capacitance Change 静电容量变化率</td> <td>Within ±20% initial value 初始值的±20%以内</td> </tr> <tr> <td>Dissipation Factor 损耗角正切值</td> <td>≤200% of specified value 不大于规范值的 200%</td> </tr> <tr> <td>Leakage Current 漏电流</td> <td>≤The initial specified value 不大于规范值</td> </tr> </table>	Capacitance Change 静电容量变化率	Within ±20% initial value 初始值的±20%以内	Dissipation Factor 损耗角正切值	≤200% of specified value 不大于规范值的 200%	Leakage Current 漏电流	≤The initial specified value 不大于规范值																					
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Drawing(Unit: mm) 外形图



ΦD	5	6.3	8	10	13	16	18
P	2.0	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						

Rated ripple current multipliers(Unit: mm) 额定纹波修正系数

Frequency 频率 (Hz)	60Hz	120Hz	300Hz	1KHz	10KHz	100KHz
Coefficient 系数	Under 33µF	0.40	0.55	0.72	0.80	0.90
	39 < C ≤ 390	0.60	0.70	0.75	0.90	0.95
	470 up above	0.65	0.80	0.82	0.98	1.00

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise.

铝电解电容器由于在纹波电流叠加时自我发热、温度上升而老化, 每升温 5°C 寿命减少一半。

When long life performance is required in actual use, the rms ripple current has to be reduced.

要想保持长寿命请在使用过程中降低纹波电流。

RL Series

■ Standard ratings 标准品一览表

μF \ WV	6.3			10			16			25		
	ΦD x L	Impedance	R.C.	ΦD x L	Impedance	R.C.	ΦD x L	Impedance	R.C.	ΦD x L	Impedance	R.C.
10										5x11	1.5	130
22										5x11	0.76	220
33										5x11	0.62	320
47							5x11	1.0	155	6.3x11	0.52	370
56							6.3x11	0.75	180	6.3x11	0.39	400
68							6.3x11	0.62	195	6.3x11	0.32	470
100	5x11	0.90	170	5x11	0.72	210	6.3x11	0.45	265	6.3x11	0.31	370
120	5x11	0.83	175	6.3x11	0.68	250	6.3x11	0.42	270	6.3x11	0.29	380
150	6.3x11	0.73	220	6.3x11	0.55	290	6.3x11	0.37	290	8x11.5	0.28	410
180	6.3x11	0.68	240	6.3x11	0.41	320	8x11.5	0.31	370	8x11.5	0.22	455
220	6.3x11	0.58	310	6.3x11	0.32	340	8x11.5	0.22	480	8x11.5	0.13	550
270	6.3x11	0.49	340	8x11.5	0.27	400	8x11.5	0.19	520	10x12.5	0.11	720
330	8x11.5	0.38	390	8x11.5	0.24	460	8x11.5	0.14	590	10x12.5	0.10	820
470	8x11.5	0.23	450	8x11.5	0.22	580	10x12.5	0.11	750	10x16	0.068	1200
560	10x12.5	0.21	490	10x12.5	0.14	635	10x12.5	0.10	785	10x16	0.035	1250
680	10x12.5	0.19	550	10x12.5	0.10	765	10x16	0.083	1100	10x20	0.059	1320
820	10x12.5	0.15	620	10x16	0.09	890	10x16	0.070	1180	10x20	0.047	1400
1000	10x12.5	0.15	770	10x16	0.068	1040	10x20	0.059	1350	13x20	0.041	1650
1200	10x16	0.14	860	10x16	0.060	1200	10x25	0.055	1500	13x25	0.037	1980
1500	10x16	0.13	1100	10x20	0.056	1400	13x20	0.054	1380	13x25	0.034	2210
1800	10x20	0.10	1250	10x25	0.052	1550	13x20	0.042	1800	16x25	0.032	2510
2200	10x20	0.080	1380	13x20	0.037	1750	13x25	0.034	2000	16x25	0.032	2650
2700	10x25	0.068	1490	13x20	0.032	1900	13x25	0.030	2450	16x25	0.028	2820
3300	13x20	0.032	1650	13x25	0.028	2000	16x25	0.027	2790	16x31.5	0.023	3240
4700	13x25	0.032	1900	16x25	0.027	2100	16x31.5	0.023	2880	16x35.5	0.022	3650
5600	13x30	0.031	2160	16x25	0.025	2290	16x35.5	0.023	2990	18x35.5	0.022	3720
6800	16x25	0.029	2350	16x31.5	0.023	2650	18x35.5	0.022	3200	18x40	0.022	3850
8200	16x31.5	0.024	2550	16x35.5	0.023	2770	18x35.5	0.022	3320			
10000	16x35.5	0.022	2700	18x35.5	0.022	2850	18x40	0.022	3550			
15000	18x35.5	0.021	2950									

μF \ WV	35			50			63			100		
	ΦD x L	Impedance	R.C.	ΦD x L	Impedance	R.C.	ΦD x L	Impedance	R.C.	ΦD x L	Impedance	R.C.
10	5x11	2.10	105	5x11	1.65	120	5x11	1.57	110	6.3x11	1.60	130
22	5x11	1.35	150	6.3x11	1.12	150	6.3x11	0.72	180	8x11.5	0.76	220
33	5x11	1.09	180	6.3x11	0.72	250	8x11.5	0.55	270	10x12.5	0.62	320
47	6.3x11	0.72	280	6.3x11	0.58	290	8x11.5	0.50	300	10x12.5	0.53	370
56	6.3x11	0.58	310	8x11.5	0.44	310	8x11.5	0.35	330	10x12.5	0.38	400
68	8x11.5	0.47	350	8x11.5	0.29	375	10x12.5	0.19	480	10x16	0.30	470
100	8x11.5	0.22	450	10x12.5	0.15	480	10x16	0.13	610	10x25	0.27	560
120	8x11.5	0.19	510	10x12.5	0.14	530	10x16	0.12	620	10x25	0.20	660
150	8x11.5	0.17	540	10x12.5	0.12	590	10x16	0.10	700	13x20	0.16	780
180	10x12.5	0.15	650	10x16	0.10	860	10x20	0.090	800	13x20	0.13	820
220	10x12.5	0.11	750	10x16	0.086	930	10x20	0.072	920	13x25	0.11	950
270	10x16	0.086	910	10x20	0.070	1060	13x20	0.059	1150	13x30	0.10	1120
330	10x16	0.071	1050	10x25	0.059	1150	13x20	0.050	1250	16x25	0.090	1440
470	10x20	0.059	1200	13x20	0.050	1590	13x25	0.048	1620	16x31.5	0.081	1650
560	10x25	0.055	1500	13x20	0.045	1740	13x25	0.044	1680	16x35.5	0.077	1720
680	13x20	0.050	1570	13x25	0.040	1930	13x30	0.039	1950	18x35.5	0.072	1790
820	13x20	0.043	1700	13x30	0.035	2100	16x25	0.034	2150	18x35.5	0.064	1840
1000	13x25	0.038	1900	16x25	0.032	2300	16x31.5	0.031	2350	18x40	0.059	1930
1200	13x30	0.035	2130	16x31.5	0.032	2650	16x35.5	0.029	2550			
1500	16x25	0.032	2270	16x35.5	0.031	2750	18x35.5	0.028	2710			
1800	16x31.5	0.032	2700	16x35.5	0.031	2850	18x40	0.024	3000			
2200	16x31.5	0.031	2780	18x35.5	0.029	3040						
2700	16x35.5	0.026	2850	18x40	0.024	3070						
3300	18x35.5	0.023	3100	18x40	0.023	3100						
4700	18x40	0.022	3500									

Note1: Case size ΦD x L(mm), ripple current (mA, rms) at 105°C, 100KHz. 尺寸 ΦD x L(mm), 纹波电流於 105°C, 100KHz

Note2: Produce custom product too, which are not found in these tables. 客户定制品不在标准品一览表内

Note: All design and specifications are for reference only and is subject to change without prior notice. If any doubt about safety for your application, Please contact us immediately for technical assistance before purchase.

注: 以上所提供的设计及特性参数仅供参考, 任何修改不作预先通知, 如有使用上任何疑问, 请在采购前与我们联系, 以便提供技术上的协助。