

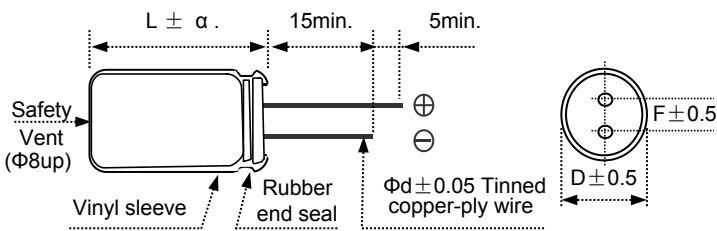
**RL Series**

- High ripple current, for input filtering, 105°C 3000hours
- RoHS2.0 Compliant

◆ 规格表 Specifications

项目 Items	特性参数 Characteristics					
使用温度范围 Category Temperature Range	-40~ +105°C (160~400V.DC)			-25~+105°C (450V.DC)		
额定工作电压范围 Rated Voltage Range	160 ~ 450V.DC					
静电容量允许偏差 Capacitance Tolerance	±20%(M) (at 20°C, 120Hz)					
漏电流 Leakage Current	I ≤ 0.02CV + 10μA Note: I=Max.leakage current (μA), C=Nominal capacitance(μF), V=Rated voltage(Vdc) (at 20°C after 2 minute)					
损耗角正切值 tanδ Dissipation Factor	Rated voltage(Vdc)	160	200	400	450	(at 20°C, 120Hz)
	tanδ (Max.)	0.20	0.20	0.24	0.24	
低温特性 Low Temperature Characteristics (Max.Impedance Ratio)	阻抗比值不得超过下表所列出的值 The impedance ratio shall not exceed the values listed in the below table.					
	Rated voltage(Vdc)	200	400	450		(at 120Hz)
	Z(-25°C)/Z(+20°C)	4	6	6		
	Z(-40°C)/Z(+20°C)	6	6	-		
耐久性 Endurance	在105°C环境中, 不超过额定电压的范围内叠加最大允许纹波电流, 连续加载右表时间, 经恢复到20°C后电容器满足以下各项要求。 The following specifications shall be satisfied when the capacitors are restored to 20°C after applied within maximum allowable ripple current and not over rated voltage range for the time in the table at					
	Capacitance change	≤ ±20% of the initial value				
	D.F.(tanδ)	≤ 200% of the initial specified value				
	Leakage current	≤ The initial specified value				
高温储存特性 Shelf Life	在105°C环境中, 不施加电压条件下储存1000小时, 经恢复到20°C后, 电容器满足以下各项要求。 The following specifications shall be satisfied when the capacitors are restored at 20°C after exposing them for 1000 hours at 105°C without voltage applied.					
	Capacitance change	≤ ±20% of the initial value				
	D.F.(tanδ)	≤ 200% of the initial specified value				
	Leakage current	≤ 200% of the initial specified value				

◆ 尺寸图 (单位: mm) DIMENSIONS (Unit:mm)



ΦD	5	6.3	8	10	13	16	18	20	22
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5	10	10
Φd	0.5	0.5	0.5	0.6	0.6	0.8	0.8	0.8	0.8

α	(L < 20) 1.5
	(L ≥ 20) 2.0

◆ 纹波电流修正系数 Rated Ripple Current Coefficient

● 频率系数 Frequency Coefficient

Rated Voltage(V)	Frequency(Hz)					
	120	300	1k	10k	50k	100k
4.7~10	1.00	1.35	1.75	2.30	2.50	2.70
15~47	1.00	1.25	1.50	1.75	1.80	1.85
56~330	1.00	1.15	1.30	1.40	1.50	1.60

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◆ 标准品一览表 Standard Ratings

WV (V <sub>dc</sub> )	Cap. (μF)	Case Size ΦD×L (mm)	Rated ripple current (mA <sub>rms</sub> ) 105°C/120Hz	WV (V <sub>dc</sub> )	Cap. (μF)	Case Size ΦD×L (mm)	Rated ripple current (mA <sub>rms</sub> ) 105°C/120Hz	WV (V <sub>dc</sub> )	Cap. (μF)	Case Size ΦD×L (mm)	Rated ripple current (mA <sub>rms</sub> ) 105°C/120Hz
160	1	6.3X12	21	250	1	6.3X12	19	400	10	12.5X20	110
	2.2	6.3X12	32		2.2	6.3X12	37		15	12.5X20	135
	3.3	6.3X12	40		3.3	8X12	50		22	12.5X25	205
	4.7	6.3X12	47		4.7	8X12	58		33	16X20	255
	6.8	8X12	62		6.8	10X12	72		47	16X25	330
	10	8X12	75		10	10X16	100		68	16X35	400
	15	10X16	115		15	10X16	120		82	18X30	420
	22	10X20	140		22	10X20	168		100	18X35	495
	33	10X20	175		33	12.5X20	210		120	18X40	520
	47	12.5X20	240		47	12.5X25	320		450	1	8X12
	68	12.5X25	370		68	16X25	410	2.2		10X12	40
	100	16X25	430		100	16X30	530	3.3		10X16	65
	150	16X25	500		150	18X25	550	4.7		10X16	85
	220	16X30	815		220	18X35	710	6.8		10X20	90
	270	18X30	880		350	1	6.3X12	24		10	12.5X20
330	18X40	980	2.2	8X12		40	15	16X20		160	
200	1	6.3X12	19	3.3		8X12	52	22		16X25	200
	2.2	6.3X12	32	4.7		10X12	65	33		16X25	320
	3.3	6.3X12	40	6.8		10X20	88	47		18X25	350
	4.7	8X12	47	10		10X20	105	68	18X30	440	
	6.8	10X12	70	15		12.5X20	130	82	18X35	500	
	10	10X12	80	22		12.5X20	182	100	18X40	560	
	15	10X16	118	33		12.5X25	240	400	1	8X12	25
	22	10X20	140	47		16X25	305		2.2	8X12	40
	33	10X20	160	68	16X30	390	3.3		10X12	55	
	47	12.5X20	250	100	18X30	480	4.7		10X16	76	
	68	12.5X25	330	1	8X12	25	6.8		10X20	80	
	100	16X25	440	2.2	8X12	40					
	150	16X25	600	3.3	10X12	55					
	220	18X30	680	4.7	10X16	76					
	270	18X40	1040	6.8	10X20	80					

※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，中心温度每升温5℃寿命减少一半。要想保持长寿命请在使用过程中降低纹波电流。  
 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. When long life performance is required in actual use, the rms ripple current has to be reduced.