

RM Series Low E.S.R 105°C

超低阻抗品 105°C

一般适用于转换式电源供应器之输出电回路等

☆ Suitable for ideal application for output of switching power supplies etc.

☆ Load life 2000~3000Hrs at 105°C

主要技术性能 Specifications

项目 Item	特性 Performance Characteristics							
使用温度范围 Operating temperature rang	-40~ +105°C							
额定电压范围 Rated voltage range	6.3~100V _{DC}							
标准电容量范围 Nominal capacitance range	4.7~6800 uF							
标准电容量允许偏差 Capacitance tolerance	±20% (120Hz, +20°C)							
漏电流 Leakage current	I ≤ 0.01CV(μA) or 3uA							
	2 分钟后测试取较大者 After 2 minutes applying the DC working voltage						V: Working Voltage (V) C: Rated Capacitance (μF) L: Leakage Current (μA)	
损耗角正切值 (tan. δ) Dissipation factor max.(D.F.) ±20°C,120Hz	Working Voltage (V _{DC})	6.3	10	16	25	35	50	63
	DF(%) Max.	16	14	12	10	9	8	8
当容量大于 1000μF 时, 每增加 1000μF 的容量, DF 增加 2. For Capacitance >1000μF, add 2% per another 1000μF.								
低温特性 Low Temperature Characteristics (Impedance ratio at 120Hz)	Working Voltage (V _{DC})	6.3	10	16	25	35	50	63
	Z-25°C/+20°C	4	3	3	3	3	3	2
	Z-40°C/+20°C	8	6	4	3	3	3	3
For Capacitance >1000μF, add 0.5 per another 1000μF for -25°C/+20°C add 1 per another 1000μF for -40°C/+20°C								
负荷寿命 Load life	+105°C 下施加额定工作2000~3000小时电压后, 时间如下表: 特性变化率如下: After applying rated voltage for 2000 ~ 3000 hours at +105°C							
	Capacitance Change	≤±20%初始测量值以内 The initial value						
	D.F.(%) Change	≤200%初始规定值 The initial specified value						
	Leakage Current Change	≤初始规定值 The initial specified value						
放置寿命 Shelf life	+105°C 下放置 1000Hrs 后, 特性变化率如下: After 1000Hrs at +105°C,							
	Capacitance Change	≤±20%初始测量值以内 The initial value						
	D.F.(%) Change	≤200%初始规定值 The Initial specified value						
	Leakage Current Change	≤初始规定值 The initial specified value						

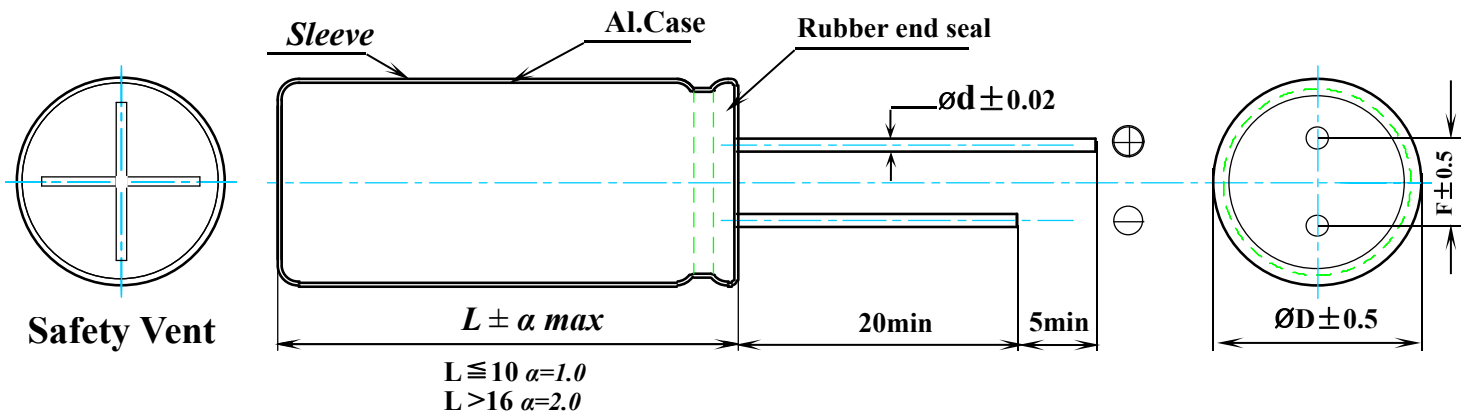
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纹波与频率系数对照表 Multiplier for Ripple Current vs. Frequency

CAP(uF)\ (Hz)		50(60)	120	400	1K	10K	50 K -100K
Coefficient	CAP ≤ 10	0.47	0.59	0.76	0.85	0.97	1.0
	10 < CAP ≤ 100	0.52	0.62	0.80	0.89	0.97	1.0
	100 < CAP ≤ 1000	0.58	0.72	0.84	0.90	0.98	1.0
	1000 < CAP	0.63	0.78	0.87	0.91	0.98	1.0

规格尺寸图(Dimensions: mm)



Unit (mm)

$\phi D \pm 0.5$	5	6.3	8	10	13	16	18
$F \pm 0.5$	2.0	2.5	3.5	5.0	5.0	7.5	7.5
$\phi d \pm 0.02$	0.5	0.5	0.5	0.6	0.6	0.8	0.8

尺寸与纹波对照表 Ripple Current vs. Case Size

ØD x L(mm)

WV(SV) Cap(µF)	6.3 (8)			10 (13)		
	Size	Ripple	E.S.R. +20°C	Size	Ripple	E.S.R. +20°C
68				5x11	180	0.72
82				5x11	210	0.52
100	5x11	200	0.42	5x11	240	0.35
120	5x11	210	0.38	5x11	260	0.29
150	5x11	220	0.35	6.3x12	300	0.27
180	6.3x12	300	0.32	6.3x12	350	0.25
220	6.3x12	360	0.25	6.3x12	390	0.20
270	6.3x12	370	0.24	6.3x15	460	0.18
330	6.3x12	390	0.21	8x12	540	0.15
390	8x12	570	0.14	8x12	620	0.12
470	8x12	600	0.11	6x12	390	0.10
560	8x16	720	0.095	8x16	870	0.09
680	8x20	800	0.087	8x20	1010	0.08
	10x17	810	0.085			
820	8x20	970	0.072	8x20	1030	0.07
1000	10x13	1000	0.061	8x20	1220	0.065
				10x17	1400	0.050
1200	8x20	1150	0.055	10x20	1500	0.042
	10x17	1200	0.052			0.035
1500	10x20	1320	0.048	10x20	1600	0.032
	10x25	1400	0.045			
1800	10x20	1450	0.041	10x25	2000	0.028
2200	10x25	1700	0.037	13x21	2200	0.025
	13x21	1800	0.039			
2700	13x21	1980	0.034	13x21	2300	0.023
3300	13x21	2100	0.026	13x25	2600	0.021
3900	10x30	2350	0.024	13x30	2890	0.020
	13x25	2500	0.022			
4700	13x30	2890	0.021	13x35	3100	0.019
5600	13x35	3000	0.020	16x31.5	3200	0.018
6800	16x31.5	3200	0.019	16x31.5	3400	0.017

Ripple Current at 105°C 100KHz
Max E.S.R.(Ω) at 20°C 100KHz

尺寸与纹波对照表 Ripple Current vs. Case Size

		ØD x L(mm)								
WV(SV)	Cap(µF)	16 (20)			25 (32)			35 (44)		
		Size	Ripple	E.S.R. +20°C	Size	Ripple	E.S.R. +20°C	Size	Ripple	E.S.R. +20°C
33								5x11	230	0.32
39				5x11	210	0.42		6.3x12	270	0.31
47		5x11	200	0.42	5x11	240	0.35	6.3x12	340	0.25
56		5x11	220	0.38	5x11	250	0.31	6.3x12	370	0.20
68		5x11	230	0.35	6.3x12	300	0.28	6.3x12	400	0.19
82		5x11	260	0.32	6.3x12	350	0.24	8x12	480	0.17
100		6.3x12	360	0.25	6.3x12	410	0.15	8x12	560	0.15
120		6.3x12	370	0.23	6.3x15	490	0.13	8x12	580	0.13
150		6.3x12	380	0.21	8x12	540	0.11	8x12	680	0.11
180		8x12	520	0.19	8x12	620	0.098	8x16	810	0.098
220		8x12	570	0.14	8x12	750	0.075	8x16	1000	0.056
								10x13	1060	0.052
270		8x12	600	0.12	8x16	850	0.063	10x17	1190	0.050
330		8x12	740	0.08	8x16	990	0.056	8x20	1210	0.041
					10x13	1010	0.054	10x17	1400	0.038
390		8x16	790	0.075	10x13	1050	0.051	10x20	1550	0.035
470		8x16	990	0.062	8x20	1260	0.045	10x20	1850	0.022
		10x13	1000	0.058	10x17	1410	0.042			
560		8x20	1070	0.057	10x20	1450	0.040	10x25	2040	0.022
680		8x20	1120	0.055	10x20	1570	0.037	13x21	2260	0.021
		10x17	1280	0.052						
820		10x20	1400	0.048	10x25	1910	0.035	13x25	2630	0.021
1000		10x20	1840	0.037	13x21	2200	0.032	13x25	2780	0.019
1200		10x25	1920	0.035	13x21	2390	0.030	16x26	3150	0.018
1500		10x25	2050	0.032	13x25	2510	0.025	13x35	3300	0.018
		13x21	2200	0.029				16x31.5	3600	0.017
1800		13x21	2380	0.026	13x30	2710	0.023	16x31.5	3670	0.016
2200		13x25	2750	0.024	13x35	3150	0.021	16x35.5	3750	0.015
2700		13x25	3000	0.022	16x31.5	3300	0.018	18x31.5	3850	0.014
3300		13x35	3490	0.019	16x31.5	3550	0.018			
3900		16x26	3520	0.018						
4700		16x31.5	3770	0.017						

Ripple Current at 105°C 100KHz
Max E.S.R.(Ω) at 20°C 100KHz

尺寸与纹波对照表 Ripple Current vs. Case Size

ØD x L(mm)

WV(SV) Cap(µF)	50 (63)			63 (79)		
	Size	Ripple	E.S.R. +20°C	Size	Ripple	E.S.R. +20°C
10				5x11	130	0.95
15				6.3x12	160	0.85
18				6.3x12	170	0.82
22	5x11	220	0.32	6.3x12	250	0.75
27	6.3x12	260	0.31	6.3x12	260	0.61
33	6.3x12	280	0.21	6.3x12	270	0.55
39	6.3x12	300	0.20	8x12	320	0.38
47	8x12	360	0.19	8x12	400	0.35
56	8x12	370	0.18	8x12	420	0.32
68	8x12	400	0.17	10x13	500	0.28
82	8x12	550	0.12	8x16	540	0.21
				10x13	570	0.18
100	8x12	730	0.085	10x13	720	0.16
120	8x16	770	0.075	8x20	790	0.15
	10x13	790	0.073	10x17	830	0.14
150	10x13	870	0.070	10x17	900	0.13
180	8x20	1060	0.068	10x20	1200	0.11
	10x17	1090	0.055			
220	10x17	1380	0.055	10x25	1310	0.095
270	10x20	1500	0.045	13x20	1400	0.075
330	10x25	1800	0.043	10x30	1750	0.071
390	13x21	1900	0.035	13x25	1870	0.045
470	13x21	2000	0.032	13x30	2150	0.041
				16x21	1970	0.043
560	13x21	2150	0.030	16x26	2350	0.039
680	13x25	2450	0.028	16x31.5	2500	0.035
820	13x30	2700	0.026	16x31.5	2650	0.031
1000	13x25	2850	0.025	16x35.5	2780	0.026
1200	16x26	2960	0.021			

Ripple Current at 105°C 100KHz
Max E.S.R.(Ω) at 20°C 100KHz