



FM 系列 Series

特点 Features

- 极低漏电特性，标准尺寸。
Extremely low leakage current, standard size.
- 适用于电视机频道转换或小信号输入回路。
Used in TVs frequency channel conversion or weak signal import loop circuits.
- RoHS指令已对应完毕。Adapted to the RoHS directive.



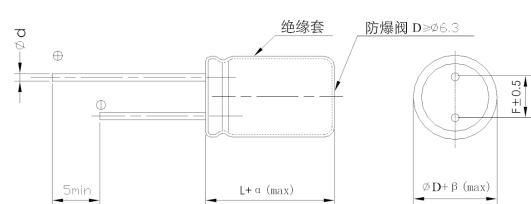
主要技术性能 Specifications

项目 Items	特性 Characteristics																											
使用温度范围 Operating Temperature Range	-40~+105°C																											
额定电压范围 Rated Voltage Range	6.3~100 V																											
标称电容量范围 Nominal Capacitance Range	0.1~2200μF																											
标称电容量允许偏差 Nominal Capacitance Tolerance	±20% (+20°C, 120Hz)																											
漏电流 Leakage Current	$I \leq 0.002CV(\mu A)$ 或 $0.4(\mu A)$ 2分钟(at 20°C, after 2 minutes) 取较大者 (whichever is greater)																											
损耗角正切值(tgδ) Dissipation Factor (+20°C, 120Hz)	<table border="1"> <thead> <tr> <th>U_r (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> </tr> </thead> <tbody> <tr> <td>tgδ</td> <td>0.28</td> <td>0.24</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.12</td> <td>0.10</td> </tr> </tbody> </table> <p>容量大于1000μF者，每增加1000μF，其损耗角正切值增加0.02 When nominal capacitance exceeds 1000μF, add 0.02 to the value above for each 1000μF increase.</p>	U_r (V)	6.3	10	16	25	35	50	63	100	tgδ	0.28	0.24	0.20	0.16	0.14	0.12	0.12	0.10									
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耐久性 Load Life	<p>+105°C 施加含额定纹波电流的额定电压2000小时，恢复16小时后： After applying rated voltage with specified ripple current for 2000 hours at +105°C and then resumed for 16 hours:</p> <p>电容量变化率 Capacitance change : ±20%初始测量值以内 ±20% of the initial measured value 漏 电 流 Leakage current : ≤初始规定值 ≤Initial specified value 损耗角正切值 Dissipation factor : ≤2倍初始规定值 ≤2 times of the initial specified value</p>																											
高温贮存 Shelf Life	<p>+105°C, 1000小时贮存后，加额定工作电压处理30分钟，恢复16小时后： After storage for 1000 hours at +105°C, U_r to be applied for 30 minutes and then resumed for 16 hours:</p> <p>电容量变化率 Capacitance change : ±20%初始测量值以内 ±20% of the initial measured value 漏 电 流 Leakage current : ≤初始规定值 ≤Initial specified value 损耗角正切值 Dissipation factor : ≤2倍初始规定值 ≤2 times of the initial specified value</p>																											

频率修正系数 Frequency Coefficient

F(Hz)	60	120	1K	≥10K
0.1~22	0.8	1	1.5	1.7
33~100	0.8	1	1.4	1.5
220~2200	0.8	1	1.3	1.35

外形图及尺寸表 Case Size Table



单位 Unit: mm

D	5	6.3	8	10	12.5
F	2.0	2.5	3.5	5.0	5.0
d	0.5	0.5	0.5, 0.6	0.6	0.6

αMAX	c L < 20 > 1.5
	c L ≥ 20 > 2.0

尺寸 Dimensions

CAP(μF) \ WV		6.3V(0J)		10V(1A)		16V(1C)		25V(1E)	
		Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
4.7	4R7							5×11	32
10	100					5×11	39	5×11	43
22	220	5×11	36	5×11	50	5×11	62	5×11	65
33	330	5×11	44	5×11	66	5×11	68	5×11	76
47	470	5×11	53	5×11	75	5×11	105	6.3×11	116
100	101	5×11	74	5×11	104	6.3×11	138	8×11.5	149
220	221	6.3×11	131	8×11.5	193	8×11.5	220	10×12.5	246
330	331	6.3×11	161	8×11.5	256	8×11.5	268	10×12.5	352
470	471	8×11.5	242	8×11.5	319	10×12.5	407	10×16	484
1000	102	10×12.5	390	10×16	605	10×20	704	12.5×20	847
2200	222	12.5×20	665	12.5×20	860	12.5×25	890		

CAP(μF) \ WV		35V(1V)		50V(1H)		63V(1J)		100V(2A)	
		Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
0.1	0R1			5×11	6	5×11	6		
0.22	R22			5×11	8	5×11	8		
0.33	R33			5×11	10	5×11	10		
0.47	R47			5×11	12	5×11	12		
1.0	010			5×11	17	5×11	17		
2.2	2R2			5×11	24	5×11	24	5×11	26
3.3	3R3			5×11	29	5×11	32	5×11	32
4.7	4R7	5×11	34	5×11	36	5×11	39	5×11	40
10	100	5×11	48	5×11	52	6.3×11	58	6.3×11	52
22	220	6.3×11	71	6.3×11	77	6.3×11	94	8×11.5	130
33	330	6.3×11	83	6.3×11	99	8×11.5	110	10×12.5	140
47	470	6.3×11	125	8×11.5	138	8×11.5	152	10×16	175
100	101	8×11.5	187	10×12.5	217	10×16	260	12.5×20	300
220	221	10×12.5	330	10×20	380	12.5×20	440		
330	331	10×16	440	12.5×20	506	12.5×25	594		
470	471	12.5×20	590	12.5×25	705				
1000	102	12.5×25	1012						

Size φD×L(mm)

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