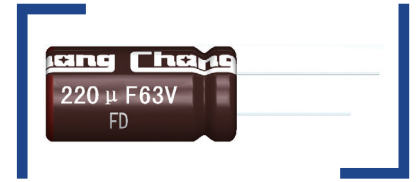




FD 系列 Series

特点 Features

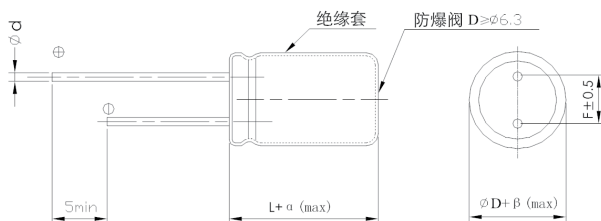
- 125°C2000小时的高温、高稳定品。
Highly dependable reliability withstanding load life of 2000 hours at +125°C.
- 适用于电动车控制器、汽车仪表类用高可靠性品。
Suited for Electric bicycle control ,automobile electronics with high reliability.
- 符合RoHS标准。Adapted to the RoHS directive.



主要技术性能 Specifications

项目 Items	特性 Characteristics						
使用温度范围 Operating Temperature Range	-40~+125°C						
额定电压范围 Rated Voltage Range	50~100V						
标称容量范围 Nominal Capacitance Range	100~2200μF						
标称容量允许偏差 Capacitance Tolerance	±20% (+20°C, +20Hz)						
漏电流 Leakage Current	I ≤ 0.01CV or 3(μA) 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"> <tr> <td>U_r (V)</td> <td>50</td> <td>63~100</td> </tr> <tr> <td>tgδ</td> <td>0.10</td> <td>0.09</td> </tr> </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)	50	63~100	tgδ	0.10	0.09
U _r (V)	50	63~100					
tgδ	0.10	0.09					
温度特性 Temperature Characteristic (Impedance ratio at 120Hz)	<table border="1"> <tr> <td>U_R (V)</td> <td>50-100</td> </tr> <tr> <td>Z-40°C / Z+20°C</td> <td>4</td> </tr> </table>	U _R (V)	50-100	Z-40°C / Z+20°C	4		
U _R (V)	50-100						
Z-40°C / Z+20°C	4						
耐久性 Load Life	<p>+125°C加额定电压2000小时, 恢复16小时后: After applying rated voltage for Load life of 2000h, at +125°C and then resumed for 16 hours: 电容量变化率 Capacitance change : ±30%初始测量值以内 ±30% 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 : ≤3倍初始规定值 ≤3times of the initial specified value</p>						
高温贮存 Shelf Life	<p>+125°C, 1000小时贮存后, 恢复16小时后: After storage for 1000 hours at +125°C, and then resumed 16 hours: 电容量变化率 Capacitance change : ±30%初始测量值以内 ±30% 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 : ≤3倍初始规定值 ≤3times of the initial specified value</p>						

外形图及尺寸表 Case Size Table



单位 Unit: mm

ØD	10	12.5	16	18
L	/	20,25	30,35	30,35,40
F	5.0	5.0	7.5	
d	0.6	0.6	0.8	
α(max)	(L<20) 1.5		(L≥20) 2.0	
β(max)	0.5			

频率修正系数 Frequency Coefficient

频率 Frequency (Hz)	120	1K	10K	100K
修正系数 Coefficient	0.5	0.8	1	1

尺寸 Dimensions

容量 C_r (UF)	代码 Code	电压 U_R	50V(1H)			63V(1J)		
			Size	ESR	Ripple	Size	ESR	Ripple
			$\phi D \times L$ (mm)	(Ω MAX)	(mA)	$\phi D \times L$ (mm)	(Ω MAX)	(mA)
220	221		10×20	0.098	475	10×20	0.096	768
330	331		10×20	0.075	1000	12.5×20	0.075	1095
470	471		12.5×20	0.072	1195	12.5×20	0.068	1465
680	681		12.5×20	0.045	1538	12.5×25	0.045	1708
1000	102		16×30	0.038	1835	16×25	0.038	1835
2200	222		18×30	0.035	1850	18×35	0.030	2710

容量 C_r (UF)	代码 Code	电压 U_R	50V(1H)			63V(1J)		
			Size	ESR	Ripple	Size	ESR	Ripple
			$\phi D \times L$ (mm)	(Ω MAX)	(mA)	$\phi D \times L$ (mm)	(Ω MAX)	(mA)
100	101		10×16	0.11	480	10×20	0.16	528
220	221		12.5×20	0.096	988	12.5×25	0.096	992
330	331		12.5×25	0.085	1210	16×25	0.070	1390
470	471		16×25	0.065	1555	16×25	0.065	1558
1000	102		16×30	0.048	2115	18×40	0.038	2320

Size $\phi D \times L$ (mm)

Maximum Allowable Ripple Current (mA rms) at 125°C 100KHz

Maximum ESR(Ω) at 20°C 100KHz