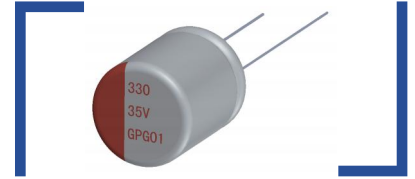


GP

特点 Features

- 保证105°C 5000小时。Endurance: 5000 h at 105°C.
- 额定电压范围：10~100V。Rate Voltage Range:10~100V.
- 小型化、低漏电流、高可靠性。Low profile、Low DC Leakage current、High reliability.
- 满足RoHS要求。RoHS Compliant.



主要技术性能 Specifications

项目 Items	特性 Performance Characteristics							
类别温度范围 Category Temperature Range	-55°C ~+105°C							
额定电压范围 Rated Voltage (U _R)	10V ~100V							
标称电容范围 Nominal Capacitance Range(C _R)	22~ 2200μF	120Hz, +20°C						
标称电容允许偏差 Allowed Capacitance Tolerance(C _r)	±20% (M)	120Hz, +20°C						
漏电流 Leakage Current(I _L)	≤0.05C _R U _R	+20°C After 2 minutes						
损耗角正切值 Tangent of loss angle(Tanδ)	<table border="1"> <tr> <td>U_R</td> <td>10~25V</td> <td>35~100V</td> </tr> <tr> <td>Tanδ</td> <td>0.14</td> <td>0.10</td> </tr> </table>	U _R	10~25V	35~100V	Tanδ	0.14	0.10	Max. 120Hz, +20°C
U _R	10~25V	35~100V						
Tanδ	0.14	0.10						
等效串联电阻 Equivalent Series Resistance(ESR)	参照规格表 Reference parameter table							
低温特性 Characteristics at low Temperature	$\frac{Z_{-25^{\circ}\text{C}}}{Z_{+20^{\circ}\text{C}}} \leq 1.5$ $\frac{Z_{-55^{\circ}\text{C}}}{Z_{+20^{\circ}\text{C}}} \leq 2.0$	Max 100KHz						
耐久性 Load Life	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，连续加载额定电压5,000小时，待温度恢复到20°C后进行测试，电容器应满足以下要求： The capacitor shall be subjected to application of the DC voltage with full rated ripple current at +105°C for 5000 hours. After stabilizing at 20°C, the capacitor shall not exceed the specified limits. (The sum of DC voltage and ripple peak voltage shall not exceed the rated voltage.)							
	电容变化率 Capacitance Change	±25%初始测量值以内 Within ±25% of initial measured value						
	损耗角正切 Tangent of loss angle	≤ 200%初始规定值 Not more than 200% of specified value						
	等效串联电阻 Equivalent Series Resistance	≤ 200%初始规定值 Not more than 200% of specified value						
	漏电流 Leakage Current	≤ 初始规定值 Not more than specified value						
高温贮存 Shelf Life	在105°C±2°C环境中，无负荷放置1000H后，待温度恢复到20°C后进行测试，电容器应满足以下要求： After storage for 1000 hours at +105°C±2°C with no voltage applied and then being stabilized at +20°C, the capacitors shall not exceed the specified values listed below:							
	电容变化率 Capacitance Change	±25%初始测量值以内 Within ±25% of initial measured value						
	损耗角正切 Dissipation Factor	≤ 200%初始规定值 Not more than 200% of specified value						
	等效串联电阻 Equivalent Series Resistance	≤ 200%初始规定值 Not more than 200% of specified value						
	漏电流 Leakage Current	≤ 初始规定值 Not more than specified value						

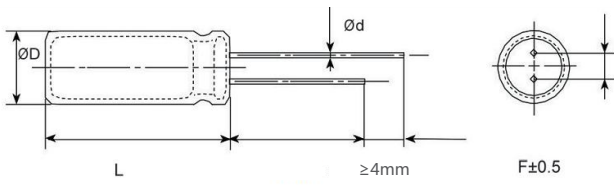
※ 当产生疑问的时候，用以下电压处理后测定。

电压处理: 125°C下，连续加载120分钟电压。加载电压为额定电压。

When in doubt, apply the following voltage treatment and measure.

Voltage processing: under the condition of 125 °C ambient temperature, continuous load voltage of 120 minutes. Load voltage is rated voltage.

尺寸图 Dimensional drawings



尺寸表 Size table

单位 Unit: mm

$\Phi D (+0.5\text{max})$	5	6.3	8	10
$F (\pm 0.5)$	2.0	2.5	3.5	5
$\Phi d (\pm 0.05)$	0.5	0.6	0.6	0.6
L	+1.0max			

规格特性表

Table of specifications and characteristics

$U_r (V)$	$C_r (\mu F)$	$\Phi D \times L$ (mm*mm)	$\text{Tan}\delta$ (120Hz, 20°C)	$I_l (\mu A)$	ESR (mΩ/at 100k~300kHz 20°C max)	I_{ACR} (mA/rms at 100kHz, 105°C)
10	1000	8×12	0.14	500	16	3300
	1200	8×16	0.14	600	14	3500
	1500	10×12.5	0.14	750	13	3650
	2200	10×16	0.14	1100	12	3800
16	100	5×8	0.14	80	40	2200
	220	5×9	0.14	176	28	2700
	470	6.3×10	0.14	376	20	3300
	470	8×12	0.14	376	26	2450
	560	6.3×11	0.14	448	20	3400
	820	8×12	0.14	656	23	2900
	1000	8×16	0.14	800	20	3100
	1000	10×12.5	0.14	800	20	3100
	1000	10×16	0.14	800	16	3600
	1200	8×16	0.14	960	20	3100
	1500	10×12.5	0.14	1200	18	3300
	2200	10×16	0.14	1760	16	3600
25	100	5×8	0.14	125	40	2200
	180	6.3×8	0.14	225	30	2300
	180	8×12	0.14	225	28	2100
	220	6.3×9	0.14	275	37	2500
	220	10×12	0.14	275	22	2400
	270	8×12	0.14	337	28	2100
	330	8×12	0.14	412	24	2100
	330	10×12.5	0.14	412	20	2500
	390	8×12	0.14	487	23	2300
	470	8×12	0.14	587	23	2300
	470	8×16	0.14	587	21	2500
	470	10×12.5	0.14	587	20	2600
	680	8×16	0.14	850	20	2600

$U_R(V)$	$C_R(\mu F)$	$\Phi D \times L$ (mm*mm)	$\tan\delta$ (120HZ, 20°C)	$I_L(\mu A)$	ESR (mΩ/at 100k~300kHz 20°C max)	I_{ACR} (mA/rms at 100kHz, 105°C)
25	680	10×12.5	0.14	850	18	2800
	680	10×16	0.14	850	16	3100
	820	10×12.5	0.14	1025	18	2800
	820	10×16	0.14	1025	16	3100
	1000	10×16	0.14	1250	16	3100
35	47	6.3×8	0.1	82	50	2000
	100	6.3×9	0.1	175	35	1400
	100	8×11	0.1	175	30	1600
	150	10×10	0.1	262	28	1900
	220	8×12	0.1	385	24	2100
	220	10×12.5	0.1	385	22	2400
	270	8×16	0.1	472	22	2200
	330	8×16	0.1	577	22	2200
	330	10×12.5	0.1	577	20	2500
	390	10×12.5	0.1	682	20	2500
	470	10×12.5	0.1	822	20	2600
470	10×16	0.1	822	18	2800	
50	47	6.3×10	0.1	117.5	42	2150
	68	10×12	0.1	170	30	1700
	100	8×12	0.1	250	30	1600
	150	8×16	0.1	375	28	1800
	180	10×12.5	0.1	450	26	2000
	220	8×14	0.1	550	30	1800
	220	8×16	0.1	550	28	1900
	220	10×12.5	0.1	550	24	2300
63	22	8×12	0.1	80	55	1200
	47	8×11.5	0.1	148	40	1300
	47	10×10	0.1	148	36	1400
	82	8×12	0.1	258	36	1400
	100	8×16	0.1	315	32	1600
	100	10×12.5	0.1	315	30	1700
	150	10×12.5	0.1	472	30	1800
	180	10×16	0.1	567	28	2100
80	33	8×12	0.1	132	55	1200
	47	8×16	0.1	188	50	1400
	56	10×12.5	0.1	224	45	1600
	82	10×16	0.1	328	40	1800
100	22	8×12	0.1	110	55	1200
	27	8×16	0.1	135	50	1400
	33	10×12.5	0.1	165	45	1600
	47	10×12.5	0.1	235	45	1700
	47	10×16	0.1	235	40	1800
	82	10×16	0.1	410	40	1800

额定纹波电流频率修正系数
Frequency correction factor for ripple current

Frequency (KHz)	0.1≤Freq.≤0.5	0.5 < Freq.≤1	1 < Freq.≤5	5 < Freq.≤10	10 < Freq.≤50	50 < Freq. < 100	100≤Freq.≤300
Coefficient (Kf)	0.1	0.3	0.4	0.6	0.75	0.9	1