

GP 石墨烯混合型（标准品）—插件型

GP Graphene Hybrid Type(Standard Type)-----Radial Type

特点 Features

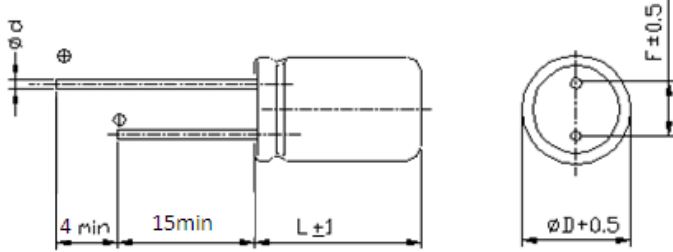
- 超小型化 Low profile、高耐电压 High voltage、低漏电流 Low DC Leakage current、高可靠性 High reliability, 高安全系数 Safety-critical。
- 保证 105℃ 5000 小时。Endurance: 5000 h at 105 ° C
- 额定电压范围: 6.3~100Vdc Rated Voltage Range:6.3~100VDC
- 静电容量范围: 1~3300μF Capacitance Range: 1~3300μF

主要技术性能 Specifications

项目 Items	特性 Characteristics											
工作温度范围 Operating Temperature Range	-55℃ ~+105℃											
额定电压范围 Rated Voltage Range	6.3V ~100V DC											
标称容量范围 Nominal Capacitance Range	1~ 3300μF											
标称容量允许偏差 Nominal Capacitance Tolerance	±20% (25℃, 120Hz)											
漏电流 Leakage Current	$I \leq 0.05CV(\mu A)$ or $80\mu A$, whichever is greater 25℃, 2 分钟 at 25℃, after 2 minutes I: 漏电流(μA)、C: 静电容量(μF)、V: 额定电压(VDC)											
损耗角正切 (tgδ) Dissipation Factor (Max)	25℃, 120Hz	<table border="1"> <thead> <tr> <th>额定电压 (Vdc)</th> <th>6.3~14V</th> <th>16~25V</th> <th>35~100V</th> </tr> </thead> <tbody> <tr> <td>Tgδ</td> <td>0.18</td> <td>0.14</td> <td>0.10</td> </tr> </tbody> </table>			额定电压 (Vdc)	6.3~14V	16~25V	35~100V	Tgδ	0.18	0.14	0.10
额定电压 (Vdc)	6.3~14V	16~25V	35~100V									
Tgδ	0.18	0.14	0.10									
ESR	≤Not to exceed the value specified											
高低温特性比 Characteristics of impedance ratio at high temp. and low temp.	要求在 100KHZ Based the value at 100KHZ. $Z(-25℃) / Z(+25℃) \leq 1.5$ $Z(-55℃) / Z(+25℃) \leq 2.0$											
耐久性 Load Life	+105℃施加额定电压 5000 小时后, 电容器应满足以下要求: After 5000 hours' application of rated voltage at 105℃, the capacitor shall meet the following requirement:											
	容量变化率 Capacitance Change	±25%初始值以内 Within ±25% of the initial value										
	损耗角正切 Dissipation Factor	≤ 200%初始规定值 Not to exceed 200% of the value specified										
	阻抗 Equivalent Series Resistance	≤ 200%初始规定值 Not to exceed 200% of the value specified										
	漏电流 Leakage Current	≤ 初始规定值 Not to exceed the value specified										
高温贮存 Shelf Life Test	在 105℃±2℃环境中, 无负荷放置 1000H 后, 待温度恢复到 25℃后进行测试, 电容器应满足以下要求: After storage for 1000 hours at +105℃±2℃ with no voltage applied and then being stabilized at +25℃ the capacitor shall not exceed the specified values listed below.											
	容量变化率 Capacitance Change	±25%初始值以内 Within ±25% of the initial value										
	损耗角正切 Dissipation Factor	≤ 200%初始规定值 Not to exceed 200% of the value specified										
	阻抗 Equivalent Series Resistance	≤ 200%初始规定值 Not to exceed 200% of the value specified										
	漏电流 Leakage Current	≤ 初始规定值 Not to exceed the value specified										

尺寸图 Dimensions

单位 Unit:mm



D	4	5	5.5	6	8	10
F	1.5	2.0	2.5	2.5	3.5	5
d	0.45	0.5	0.5	0.6	0.6	0.6

■ 标称电容量、额定电压、额定纹波电流与尺寸对应表 Nominal capacitance, rated voltage, rated ripple current and case size table

Size Code	UR (V)	CR (μF)	ESR (mΩm ax.)	Ripple 100KHZ (mArms)	Leakage current(μA) (max.)	Size Code	UR (V)	CR (μF)	ESR (mΩm ax.)	Ripple 100KHZ (mArms)	Leakage current(μA) (max.)	
4×7	6.3	220	65	880	80	5×9	12	330	45	1440	198	
	7.5	180	65	850	80		14	270	45	1300	189	
	10	150	65	750	80		16	270	45	1200	216	
	4×9	12	100	65	660	80	5×11	6.3	560	38	2050	176
		14	100	65	660	80		7.5	560	38	2050	210
		16	100	65	660	80		10	390	38	1700	195
4×9		6.3	330	60	1150	104		12	330	40	1550	198
		7.5	270	60	1080	101		14	270	40	1400	189
		10	220	60	1080	110		16	270	40	1400	216
5×7	12	180	60	900	108	5.5×7	6.3	470	42	1600	148	
	14	100	60	850	80		7.5	470	42	1600	176	
	16	100	60	850	80		10	330	42	1350	165	
	5×7	6.3	330	42	1340		104	12	270	45	1210	162
		6.3	390	42	1460		123	14	220	45	1090	154
		7.5	330	42	1340		124	16	180	45	990	144
5×8	10	220	42	1080	110	5.5×9	6.3	680	42	2140	214	
	12	220	45	1080	132		7.5	680	42	2140	255	
	14	180	45	990	126		10	560	42	1950	280	
	5×8	16	150	45	900		120	12	470	45	1750	282
		6.3	470	42	1700		148	14	390	45	1600	273
		7.5	330	42	1500		123	16	330	45	1500	264
5×9	10	330	42	1400	165	5.5×11	6.3	820	38	2450	258	
	12	270	45	1280	162		7.5	680	38	2250	255	
	14	220	45	1200	154		10	560	38	2100	280	
	5×9	16	180	45	1100		144	12	500	40	1950	300
		6.3	560	42	1880		176	14	390	40	1700	273
		7.5	500	42	1750		187	16	330	40	1550	264
	10	390	42	1550	195							

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Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use.

Size Code	UR (V)	CR (μF)	ESR (mΩm ax.)	Ripple 100KHZ (mArms)	Leakage current(μA) (max.)	Size Code	UR (V)	CR (μF)	ESR (mΩm ax.)	Ripple 100KHZ (mArms)	Leakage current(μA) (max.)
6.3×5.4	6.3	390	55	1350	123	8×8	7.5	820	28	2400	307
	7.5	330	55	1250	124		7.5	1000	28	2600	375
	10	270	55	1150	135		7.5	1200	28	2650	450
	12	220	55	1050	132		10	470	28	2050	235
	14	180	55	950	126		10	560	28	2150	280
	16	150	55	850	120		10	680	28	2200	340
6.3×7	6.3	470	34	1650	148		10	820	28	2400	410
	6.3	560	34	1800	176		10	1000	28	2550	500
	6.3	680	34	2000	214		12	330	28	1700	198
	6.3	820	34	2100	258		12	470	28	2050	282
	7.5	470	34	1650	176		12	560	28	2150	336
	7.5	560	34	1800	210		12	680	28	2200	408
	10	330	34	1400	165		12	820	28	2400	492
	10	470	34	1650	235		14	220	28	1400	154
	10	500	34	1720	250		14	270	28	1500	189
	12	390	36	1520	234		14	330	28	1700	231
	14	330	36	1400	231		14	470	28	2050	329
	16	270	36	1500	216		14	560	28	2200	392
	16	330	36	1600	264		14	680	28	2400	476
	6.3×9	6.3	1000	24	2400		315	16	270	28	1700
7.5		1000	32	2400	375		16	330	28	1900	264
10		820	32	2200	410		16	470	28	2150	376
12		680	34	2100	408		16	560	28	2300	448
14		560	34	2050	392		20	270	28	1700	270
16		470	34	2050	376		20	330	28	1850	330
20		330	34	1500	330		20	470	28	2150	470
25		220	37	1600	275		25	100	32	1600	125
35		100	45	1500	175		25	220	32	2400	275
35		100	45	1500	175		25	270	32	2450	337
6.3×11	6.3	1200	28	2600	378		25	330	32	2500	412
	7.5	1000	28	2600	375	35	100	42	2150	175	
	10	820	28	2300	500	35	150	42	2150	262	
	12	680	28	2200	408	50	10	52	2100	80	
	14	560	28	2150	392	50	22	52	2100	80	
	16	470	28	2150	376	50	33	52	2100	82	
	20	330	28	1700	330	50	47	52	2100	117	
	25	270	32	1700	337	50	56	52	2100	140	
	25	270	32	1700	337	50	68	52	2100	170	
8×8	6.3	560	28	2150	176	50	82	52	2100	205	
	6.3	680	28	2200	214	63	22	55	2100	80	
	6.3	820	28	2400	258	63	33	55	2100	103	
	6.3	1000	28	2600	315						
	6.3	1500	28	2800	472						
	7.5	560	28	2150	210						
	7.5	680	28	2200	255						
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Size Code	UR (V)	CR (μF)	ESR (mΩm ax.)	Ripple 100KHZ (mArms)	Leakage current(μA) (max.)	Size Code	UR (V)	CR (μF)	ESR (mΩm ax.)	Ripple 100KHZ (mArms)	Leakage current(μA) (max.)
8×9	6.3	2000	20	3200	630	10×12.5	6.3	3300	20	3700	1039
	7.5	1500	26	2800	562		7.5	2700	20	3300	1012
	10	1200	26	2750	600		10	2200	20	3200	1100
	12	1000	26	2600	600		12	1800	20	3150	1080
	14	1000	28	2600	700		14	1500	20	2950	1050
	16	820	26	2550	656		16	1200	20	2900	960
	20	560	26	2350	560		20	560	20	2600	560
8×11.5	6.3	2200	24	3300	693		20	680	20	2700	680
	7.5	1800	24	2950	675		20	820	20	2850	820
	10	1500	24	2900	750		25	680	26	2650	850
	12	1200	24	2750	720		35	330	30	2600	577
	14	1000	24	2700	700		50	22	48	2500	80
	16	820	24	2650	656		50	33	48	2500	82
	20	470	24	2300	470		50	47	48	2500	117
	20	560	24	2450	560		50	56	48	2500	140
	20	680	24	2550	680		50	68	48	2500	170
	25	220	28	2050	275		50	82	48	2500	205
	25	330	28	2050	412		50	100	48	2500	250
	25	470	28	2150	587		50	150	48	2550	375
	35	100	36	2100	175		63	22	55	2300	80
	35	220	36	2300	385	63	33	55	2300	104	
	50	22	48	2200	80	63	47	55	2300	148	
	50	33	48	2200	82	63	56	55	2300	176	
	50	47	48	2200	117	63	68	55	2300	214	
	50	56	48	2200	140	63	82	55	2300	258	
	50	68	48	2300	170	63	100	55	2350	315	
	50	82	48	2300	205	100	10	120	2100	80	
	50	100	48	2300	250	100	15	120	2100	80	
	63	22	55	2100	80	100	22	120	2100	110	
	63	33	55	2100	104	100	33	120	2100	165	
	63	47	55	2150	148	10×16	35	470	24	3100	822
	63	56	55	2150	176		35	560	24	3100	980
	100	10	120	2000	80						
	100	15	120	2000	80						

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	0.10	0.30	0.4	0.6	0.75	0.9	1