

**LONG LIFE**  
**长寿命**

- 105°C 5000hours assured  
105°C 5000H 寿命保证
- Ultra low ESR,solid capacitors of SMD type  
极低等效串联电阻(ESR), 贴片型固态电容器
- RoHS compliance符合RoHS 指令



**Specifications 特性表**

Items 项目	Characteristics 主要特性	
Operation Temperature Range 使用温度范围	-55°C~105°C	
Voltage Range 额定电压范围	2.5~35V	
Capacitance Range 额定容量范围	10~1500	
Capacitance Tolerance 额定容量容许误差值	±20% at 120Hz,20°C	
Dissipation Factor (Tanδ)损失角	Standard Ratings 标准品一览表	
ESR 等效串联电阻 (ESR)	Standard Ratings 标准品一览表	
Leakage Current 漏电流	Standard Ratings 标准品一览表	
Endurance 耐久性	After 5000Hrs. Application of the rated voltage at 105°C,returned to 20°C for testing, they meet the characteristics listed below. 在105°C 下连续施加额定电压5000小时后, 返回20°C进行测试时, 满足以下项目	
	Capacitance Change 静电容量变化率	Within ±20% of initial value ≤初始值的±20%
	Tanδ损失角	Less than 150% of specified value ≤初始值的150%
	ESR 等效串联电阻	Less than 150% of specified value ≤初始值的150%
	Leakage Current漏电流	Within specified value ≤初始规格值
Moisture Resistance 耐湿无负荷	After 1000 hours in an environment of 60 °C , 90~95% humidity, return to 20 °C for testing, they meet the characteristics listed below. 在60°C, 湿度90~95%环境中1000H后, 返回20°C进行测试, 需满足以下项目	
	Capacitance Change 静电容量变化率	Within ±20% of initial value ≤初始值的±20%
	Tanδ损失角	Less than 150% of specified value ≤初始值的150%
	ESR 等效串联电阻	Less than 150% of specified value ≤初始值的150%
	Leakage Current漏电流	Within specified value ≤初始规格值
Resistance to Soldering Heat焊锡耐热性	After reflow soldering and restored at room temperature,they meet the characteristics listed below. 经过回流焊并冷却至室温后, 电容器的特性符合下表的要求。	
	Capacitance Change 静电容量变化率	Within ±10% of initial value ≤初始值的±10%
	Tanδ损失角	Less than 130% of specified value ≤初始值的130%
	ESR 等效串联电阻	Less than 130% of specified value ≤初始值的130%
	Leakage Current漏电流	Within specified value ≤初始规格值
Marking 标识	Red print on the case top. 铝壳顶部红色印刷。	

**DRAWING (Unit: mm) 外形图**



**Diagram of Dimensions 尺寸图**



**DIMENSIONS (Unit: mm) 尺寸表**

尺寸	5X5.8	6.3X6.0	6.3X7.0	8X7.0	8X12	10X7.7	10X10	10X12.6
ΦD	5.0	6.3	6.3	8.0	8.0	10.0	10.0	10.0
L	5.8±0.3	6.0+0.1/-0.3	7.0±0.3	6.9+0.1/-0.4	12±0.5	7.7±0.3	9.9+0.1/-0.4	12.6+0.1/-0.4
A	5.3	6.6	6.6	8.3	8.3	10.3	10.3	10.3
B	5.3	6.6	6.6	8.3	8.3	10.3	10.3	10.3
C	5.9	7.2	7.2	9.0	9.0	11.0	11.0	11.0
P±0.2	1.5	2.0	2.0	3.1	3.1	4.6	4.6	4.6
W	0.5~0.8	0.5~0.8	0.5~0.8	0.7~1.1	0.7~1.1	0.7~1.3	0.7~1.3	0.7~1.3

Specifications 标准品一览表

Rated Volt.(V)	Surge Voltage(V)	Capacitance(μF)	Size ΦDXL (mm)	Tanδ 120Hz, 20°C	LC(μA) 2minutes	ESR (mΩ) 20°C 100KHZ	Rated R.C (mA/rms at 100KHz,105°C)
2.5V(0E)	2.8	220	6.3X6.0	0.12	110	25	2,500
		560	8X7.0	0.12	280	23	3,100
		680	8X12	0.18	340	12	4,770
		1,000	10X7.7	0.12	500	19	4,240
		1,200	10X10	0.18	750	13	5,200
		1,500	10X12.6	0.18	750	10	5,500
4V(0G)	4.6	68	5X5.8	0.12	300	30	1,970
		150	5X5.8	0.12	120	25	2,200
			6.3X6.0	0.12	120	22	2,570
		220	8X7.0	0.12	176	25	3,020
		270	8X7.0	0.12	216	22	3,220
		330	6.3X6.0	0.12	264	20	2,800
			8X7.0	0.12	264	22	3,220
		390	6.3X7.7	0.12	312	14	3,470
		470	10X7.7	0.12	375	20	4,130
		560	8X7.0	0.12	448	18	3,600
			8X12	0.18	448	12	4,770
		680	10X7.7	0.12	544	20	4,130
		820	10X10	0.18	656	13	5,200
		1,200	10X12.6	0.18	960	10	5,500
6.3V(0J)	7.2	47	5X5.8	0.12	300	30	1,970
		82	6.3X6.0	0.12	103	27	2,400
		100	5X5.8	0.12	126	35	1,380
			6.3X6.0	0.12	126	22	2,800
		120	6.3X6.0	0.12	151	22	2,800
		150	8X7.0	0.12	189	25	3,020
		220	6.3X6.0	0.12	277	20	2,800
			8X7.0	0.12	277	22	3,220
		270	6.3X7.7	0.12	340	14	3,470
		330	6.3X7.7	0.12	416	14	3,470
			10X7.7	0.12	416	20	4,130
		390	8X7.0	0.1	491	22	3,220
		470	8X12	0.15	592	12	4,770
			10X7.7	0.12	592	20	4,130
		560	10X10	0.15	706	16	4,700
		820	10X12.6	0.15	1,033	10	5,500
10V(1A)	12.0	33	5X5.8	0.12	100	40	1,300
		56	6.3X6.0	0.12	112	27	2,300
		68	5X5.8	0.12	136	30	2,100
			6.3X6.0	0.12	136	27	2,300
		120	6.3X6.0	0.12	240	27	2,300
		150	6.3X7.7	0.12	300	21	2,880
			8X7.0	0.12	300	301	2,760
			10X7.7	0.12	300	30	3,020
		270	8X7.0	0.12	540	22	3,200
		330	8X12	0.15	660	14	4,420
			10X7.7	0.12	660	24	3,770
		470	10X10	0.12	940	18	4,400
560	10X12.6	0.12	1,120	12	5,300		

●Case size ΦD XL(mm),ripple current (mA rms) at 105°C,100KHz ●尺寸ΦD XL(mm),纹波电流 (mA rms) 于105°C,100KHz

FPK | Chip Type 贴片式

Specifications 标准品一览表

Rated Volt.(V)	Surge Voltage(V)	Capacitance(μF)	Size ΦDXL (mm)	Tanδ 120Hz, 20°C	LC(μA) 2minutes	ESR (mΩ) 20°C 100KHZ	Rated R.C (mA/rms at 100KHz,105°C)	
16V(1V)	18.0	22	5X5.8	0.12	100	45	1,100	
		39	5X5.8	0.12	125	35	2,000	
			5X5.8	0.12	125	30	2,000	
		68	6.3X6.0	0.12	218	30	2,200	
			82	6.3X6.0	0.12	262	30	2,200
				6.3X7.7	0.12	262	24	2,700
		100	8X7.0	0.12	262	28	2,800	
			6.3X6.0	0.12	320	30	2,200	
			6.3X7.7	0.12	320	24	2,700	
		120	10X7.7	0.12	320	35	2,670	
		180	8X7.0	0.12	384	28	2,800	
		330	10X7.7	0.12	576	29	3,430	
		470	10X12.6	0.12	1,056	11	5,300	
		820	10X12.6	0.12	1,504	12	5,300	
1,000	10X12.6	0.12	2,624	12	5,400			
20V(1D)	23.0	22	6.3X6.0	0.12	88	48	1,300	
		47	8X7.0	0.12	188	45	1,890	
		56	6.3X6.0	0.12	224	48	1,300	
		68	6.3X6.0	0.12	272	48	1,300	
		82	6.3X6.0	0.12	328	48	1,300	
		100	6.3X6.0	0.12	400	48	1,300	
		120	6.3X6.0	0.12	480	48	1,300	
		270	8X12	0.12	1,080	21	4,000	
		390	8X12	0.12	1,560	14	4,950	
		470	10X12.6	0.12	1,880	20	4,300	
25V(1E)	29.0	10	8X7.0	0.10	125	60	1,500	
		47	6.3X6.0	0.12	235	49	1,300	
		150	8X12	0.12	750	28	2,200	
		270	10X12.6	0.12	1,350	27	2,700	
35V(1V)	40.0	18	6.3X6.0	0.12	126	64	900	
		82	8X12	0.12	574	29	2,200	
		150	10X12.6	0.12	1,050	28	2,600	

●Case size ΦD XL(mm),ripple current (mA rms) at 105°C,100KHz ●尺寸ΦD XL(mm),纹波电流 (mA rms) 于105°C,100KHz

Ripple Current and Frequency Multipliers 纹波电流与频率修正系数

Frequency 频率	120HZ	1KHZ	10KHZ	100KHZ~
Multipliers 修正系数	0.05	0.30	0.70	1.00

- Taping specifications are given in page 17 "Taping Specifications". 编带标准请参阅第17页“编带标准”
- Please refer to page 18 "Package Quantity" for the minimum package quantity. 最小包装数量请参阅第18页“包装数量”

Note: All design and specifications are for reference only and is subject to change without prior notice. If any doubt about safety for your application, please contact us immediately for technical assistance before purchase

注：以上所提供的设计及特性参数仅供参考，任何修改不作预先通知。如果在使用上有疑问，请在采购前与我们联系，以便提供技术上的协助