

VPT Series 片式导电聚合物固体铝电解电容器标准品

Standard Conductive Polymer Aluminum Solid Electrolytic Capacitor of SMD Type

- 高频低阻抗 Low ESR at high frequency range
- 高纹波 High ripple current capability
- 105°C, 2000 小时 105°C, 2000 hours assured



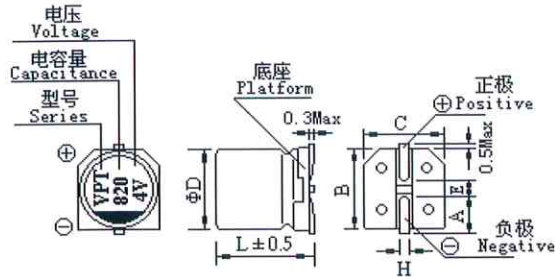
■ 主要技术性能 Specifications

项目 Items	主要特性 Performance Characteristics								
使用温度范围 Operating Temperature Range	-55~+105°C								
额定电压范围 Rated Voltage Range	2.5~25V. DC								
标称电容量允许偏差 Capacitance Tolerance	±20% (120Hz, 20°C)								
漏电流(20°C) Leakage Current	施加额定工作电压 2 分钟, $I \leq 0.2 C_R U_R$ (μA) After 2 minutes' application of rated voltage, the leakage current is not more than 0.2 $C_R U_R$								
损耗角正切值(120Hz 20°C) Dissipation Factor	测试频率 120Hz/温度 20°C, 损耗小于规范值 Less than the specified value at 120Hz, 20°C								
等效串联电阻 Equivalent Series Resistance	测试频率 100KHz/温度 20°C, 等效串联电阻小于规范值 Less than the specified value at 100KHz, 20°C								
耐久性 Load Life(105°C, 2000hrs)	在 105°C 环境施加额定工作电压 2000 小时后, 电容器符合下表要求。 After 2000 hours' application of rated voltage at +105°C, capacitors meet the characteristics requirements listed . <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>电容量变化率 Capacitance Change</td> <td>初始值的±20%以内 Within ±20% of the initial value</td> </tr> <tr> <td>漏电流值 Leakage</td> <td>≤规范值 Less than the specified value</td> </tr> <tr> <td>损耗角正切值 Dissipation Factor</td> <td>≤规范值的 150% Less than 150% of the specified value</td> </tr> <tr> <td>等效串联电阻 Equivalent Series Resistance</td> <td>≤规范值的 150% Less than 150% of the specified value</td> </tr> </table>	电容量变化率 Capacitance Change	初始值的±20%以内 Within ±20% of the initial value	漏电流值 Leakage	≤规范值 Less than the specified value	损耗角正切值 Dissipation Factor	≤规范值的 150% Less than 150% of the specified value	等效串联电阻 Equivalent Series Resistance	≤规范值的 150% Less than 150% of the specified value
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耐湿温特性 Damp heat(Steady state) (60°C, 90~95%RH, 1000hrs)	在温度为 60°C、湿度为 90~95%RH 的环境中, 1000 小时后, 电容器的特性符合下表要求。 60°C, 90 to 95%RH, 1000h, No applied voltage capacitors meet the characteristics requirements listed . <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>电容量变化率 Capacitance Change</td> <td>初始值的±20%以内 Within ±20% of the initial value</td> </tr> <tr> <td>漏电流值 Leakage</td> <td>≤规范值 Less than the specified value</td> </tr> <tr> <td>损耗角正切值 Dissipation Factor</td> <td>≤规范值的 150% Less than 150% of the specified value</td> </tr> <tr> <td>等效串联电阻 Equivalent Series Resistance</td> <td>≤规范值的 150% Less than 150% of the specified value</td> </tr> </table>	电容量变化率 Capacitance Change	初始值的±20%以内 Within ±20% of the initial value	漏电流值 Leakage	≤规范值 Less than the specified value	损耗角正切值 Dissipation Factor	≤规范值的 150% Less than 150% of the specified value	等效串联电阻 Equivalent Series Resistance	≤规范值的 150% Less than 150% of the specified value
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外形图及尺寸 Case size table

mm



ϕD	L	A	B	C	H	$E \pm 0.2$
8	6.2	2.9	8.3	8.3	0.8~1.1	3.1
8	9.0	2.9	8.3	8.3	0.8~1.1	3.1
8	10.0	2.9	8.3	8.3	0.8~1.1	3.1
8	12.0	2.9	8.3	8.3	0.8~1.1	3.1
10	12.5	3.2	10.3	10.3	0.8~1.1	4.5

编码和规格 Part number & Specifications

额定电压 Rated Voltage (V)	标称容量 Capacitance (μF)	产品编码 Part Number	等效串联电阻 ESR(m Ω max) 100Khz to 300Khz	耐纹波电流 (mA rms/ 105 $^{\circ}\text{C}$, 100Khz)	损耗 Tan δ (120Hz)	漏电流 (max) (μA)	尺寸 $\phi D \times L$ (mm)
2.5	560	VPT0E561M0809	18	3900	0.10	280	8 \times 9
	680	VPT0E681M0809	18	3900	0.10	340	8 \times 9
	820	VPT0E821M0809	18	4080	0.10	410	8 \times 9
	820	VPT0E821M0812	16	4520	0.10	410	8 \times 11.8
	1000	VPT0E102M0812	16	4520	0.10	500	8 \times 11.8
	1500	VPT0E152M0812	16	4820	0.10	750	8 \times 11.8
	1500	VPT0E152M1012	14	5440	0.10	750	10 \times 12.7
	2200	VPT0E222M1012	14	5440	0.10	1100	10 \times 12.7
	2700	VPT0E272M1012	14	5440	0.10	1350	10 \times 12.7
4	560	VPT0G561M0809	18	4080	0.10	448	8 \times 9
	680	VPT0G681M0809	18	4080	0.10	544	8 \times 9
	820	VPT0G821M0809	18	4080	0.10	656	8 \times 9
	1000	VPT0G102M0812	16	4520	0.10	800	8 \times 11.8
	1500	VPT0G152M0812	16	4520	0.10	1200	8 \times 11.8
	1500	VPT0G152M1012	14	5440	0.10	1200	10 \times 12.7
	2200	VPT0G222M1012	14	5440	0.10	1760	10 \times 12.7
	2700	VPT0G272M1012	14	5440	0.10	2160	10 \times 12.7
6.3	470	VPT0J471M0809	18	4080	0.10	592	8 \times 9
	560	VPT0J561M0809	18	4080	0.10	706	8 \times 9
	680	VPT0J681M0809	18	4080	0.10	857	8 \times 9
	820	VPT0J821M0812	16	4520	0.10	1033	8 \times 11.8
	820	VPT0J821M1012	14	5100	0.10	1033	10 \times 12.7
	1000	VPT0J102M0812	18	4520	0.10	1260	8 \times 11.8
	1000	VPT0J102M1012	14	4520	0.10	1260	10 \times 12.7
	1200	VPT0J122M1012	14	5440	0.10	1512	10 \times 12.7
	1500	VPT0J152M1012	14	5440	0.10	1890	10 \times 12.7
	2200	VPT0J202M1012	14	5440	0.10	2772	10 \times 12.7
10	220	VPT1A221M0809	18	4080	0.10	440	8 \times 9
	270	VPT1A271M0809	18	4080	0.10	540	8 \times 9
	330	VPT1A331M0809	18	4080	0.10	660	8 \times 9
	330	VPT1A331M0812	16	4080	0.10	660	8 \times 11.8
	470	VPT1A471M0812	16	4080	0.10	940	8 \times 11.8

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10	470	VPT1A471M1012	14	4080	0.10	940	10 \times 12.7
	560	VPT1A561M0812	16	4080	0.10	1120	8 \times 11.8
	560	VPT1A561M1012	14	4080	0.10	1120	10 \times 12.7
	680	VPT1A681M0812	16	4520	0.10	1360	8 \times 11.8
	680	VPT1A681M1012	14	4520	0.10	1360	10 \times 12.7
	820	VPT1A821M0812	16	4520	0.10	1640	8 \times 11.8
	820	VPT1A821M1012	14	5100	0.10	1640	10 \times 12.7
	1000	VPT1A102M0812	16	4520	0.10	2000	8 \times 11.8
	1000	VPT1A102M1012	14	5100	0.10	2000	10 \times 12.7
	1500	VPT1A152M1012	14	5100	0.10	3000	10 \times 12.7
16	100	VPT1C101M0809	18	3400	0.10	320	8 \times 9
	150	VPT1C151M0809	18	3500	0.10	480	8 \times 9
	220	VPT1C221M0809	18	3500	0.10	704	8 \times 9
	220	VPT1C221M0812	16	3640	0.10	704	8 \times 11.8
	270	VPT1C271M0809	18	3500	0.10	864	8 \times 9
	270	VPT1C271M0812	16	3640	0.10	864	8 \times 11.8
	330	VPT1C331M0812	16	4520	0.10	1056	8 \times 11.8
	330	VPT1C331M1012	14	4720	0.10	1056	10 \times 12.7
	470	VPT1C471M0812	16	4520	0.10	1504	8 \times 11.8
	470	VPT1C471M1012	14	4720	0.10	1504	10 \times 12.7
	560	VPT1C561M1012	14	4720	0.10	1792	10 \times 12.7
	680	VPT1C681M1012	14	5100	0.10	2176	10 \times 12.7
	820	VPT1C821M1012	14	5100	0.10	2624	10 \times 12.7
	1000	VPT1C102M1012	14	5100	0.10	3200	10 \times 12.7
25	100	VPT1E121M0809	40	2000	0.10	500	8 \times 9
	150	VPT1E151M0812	35	2400	0.10	750	8 \times 11.8
	220	VPT1E221M1012	30	2400	0.10	1100	8 \times 11.8
	270	VPT1E271M1012	30	2800	0.10	1350	10 \times 12.7
	330	VPT1E331M1012	30	2800	0.10	1650	10 \times 12.7
	470	VPT1E471M1012	30	2800	0.10	2350	10 \times 12.7

■ 纹波电流频率补偿系数 Frequency coefficient of allowable ripple current

Frequency 频率	120Hz \leq f<1KHz	1KHz \leq f<10KHz	10KHz \leq f<100KHz	100kHz \leq f<500KHz
Coefficient 系数	0.05	0.30	0.70	1.00

■ 纹波电流温度补偿系数

温度 $^{\circ}$ C	+40	+55	+70	+85	+105
系数	2.5	2.1	1.8	1.5	1.00