

VPT Series 片式导电聚合物固体铝电解电容器大容量品

Large capacity . Conductive Polymer . For SMD Type

- 大容量 Large capacity
- 高频低阻抗 Low ESR at high frequency range
- 高纹波 High ripple current capability
- 105℃,2000 小时 105℃,2000 hours assured
- 符合 AEC-Q200 AEC-Q200 Compliant



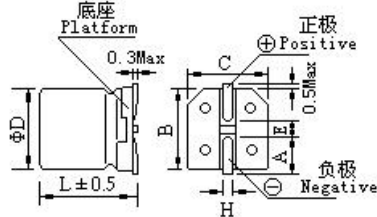
■ 主要技术性能 Specifications

项目 Items	主要特性 Performance Characteristics								
使用温度范围 Operating Temperature Range	-55~+105℃								
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℃)								
漏电流(20℃) 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℃) Dissipation Factor	测试频率 120Hz/温度 20℃, 损耗小于规范值 Less than the specified value at 120Hz, 20℃								
等效串联电阻 Equivalent Series Resistance	测试频率 100KHz/温度 20℃, 等效串联电阻小于规范值 Less than the specified value at 100KHz, 20℃								
耐久性 Load Life(105℃, 2000hrs)	<p>在 105℃ 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℃, capacitors meet the characteristics requirements listed .</p> <table border="1"> <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℃,90~95%RH,1000hrs)	<p>在温度为 60℃、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℃, 90 to 95%RH,1000h,No applied voltage capacitors meet the characteristics requirements listed .</p> <table border="1"> <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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VPT Series

外形图及尺寸 Case size table

mm



φD	L	A	B	C	H	E±0.2
8	9.0	2.9	8.3	8.3	0.8~1.1	3.1
8	10.2	2.9	8.3	8.3	0.8~1.1	3.1
8	12	2.9	8.3	8.3	0.8~1.1	3.1
10	10.2	3.2	10.3	10.3	0.8~1.1	4.5
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(mΩ max) 100Khz to 300Khz	耐纹波电流 (mA rms/ 105°C, 100Khz)	损耗 Tan δ (120Hz)	漏电流 (max) (μA)	尺寸 φD×L (mm)
2.5	470	VPT0E471M0808	20	3300	0.10	235	8×9
	560	VPT0E561M0809	18	3900	0.10	280	8×9
	680	VPT0E681M0809	18	3900	0.10	340	8×9
	820	VPT0E821M0808	20	3300	0.10	410	8×9
	820	VPT0E821M0810	17	4400	0.10	410	8×10.2
	820	VPT0E821M0812	16	4520	0.10	410	8×12
	1000	VPT0E102M0812	16	4520	0.10	500	8×12
	1500	VPT0E152M0810	17	4100	0.10	750	8×10.2
	1500	VPT0E152M1010	13	4700	0.10	750	10×10.2
	1500	VPT0E152M1012	12	5440	0.10	750	10×12.5
	2200	VPT0E222M1012	12	5440	0.10	1100	10×12.5
	2700	VPT0E272M1010	12	4700	0.10	1350	10×10.2
4	3300	VPT0E332M1012	10	5500	0.10	1650	10×12.5
	4700	VPT0E472M1012	10	5600	0.10	2350	10×12.5
	220	VPT0G221M0808	21	3200	0.10	176	8×9
	330	VPT0G331M0808	21	3400	0.10	264	8×9
	470	VPT0G471M0810	17	4200	0.10	376	8×10.2
	560	VPT0G561M0810	13	4520	0.10	448	8×10.2
	680	VPT0G681M0810	17	4400	0.10	544	8×10.2
	820	VPT0G821M0810	17	4400	0.10	656	8×10.2
	1000	VPT0G102M0812	13	4520	0.10	800	8×12
	1200	VPT0G122M0810	17	4000	0.10	960	8×10.2
	1500	VPT0G152M0812	13	4520	0.10	1200	8×12
	1500	VPT0G152M1010	13	4600	0.10	1200	10×10.2
	2200	VPT0G222M1010	13	4600	0.10	1760	10×10.2
	2700	VPT0G272M1012	11	5300	0.10	2160	10×12.5
3300	VPT0G332M1012	11	5400	0.10	2640	10×12.5	

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6.3	150	VPT0J151M0808	22	3200	0.10	189	8 \times 9
	220	VPT0J221M0808	22	3400	0.10	277	8 \times 9
	330	VPT0J331M0808	22	3100	0.10	415	8 \times 9
	470	VPT0J471M0808	22	3100	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	VPT0J821M0810	12	4700	0.10	1033	8 \times 10.2
	1000	VPT0J102M0810	18	3800	0.10	1260	8 \times 10.2
	1000	VPT0J102M1012	12	4520	0.10	1260	10 \times 12.5
	1200	VPT0J122M1012	12	5440	0.10	1512	10 \times 12.5
	1500	VPT0J152M1012	12	5440	0.10	1890	10 \times 12.5
	1800	VPT0J182M1010	14	4400	0.10	2268	10 \times 10.2
	2200	VPT0J202M1012	12	5000	0.10	2772	10 \times 12.5
	2700	VPT0J272M1012	12	5100	0.10	3402	10 \times 12.5
10	120	VPT1A121M0808	23	3000	0.10	240	8 \times 9
	150	VPT1A151M0808	23	3200	0.10	300	8 \times 9
	220	VPT1A221M0809	18	4080	0.10	440	8 \times 9
	270	VPT1A271M0809	18	4080	0.10	540	8 \times 9
	330	VPT1A331M0808	23	3100	0.10	660	8 \times 9
	330	VPT1A331M0810	20	3700	0.10	660	8 \times 10.2
	470	VPT1A471M0810	20	3700	0.10	940	8 \times 10.2
	560	VPT1A561M0810	20	3600	0.10	1120	8 \times 10.2
	560	VPT1A561M1010	15	4800	0.10	1120	10 \times 10.2
	680	VPT1A681M0812	16	4520	0.10	1360	8 \times 12
	820	VPT1A821M0812	14	4520	0.10	1640	8 \times 12
	820	VPT1A821M1010	15	4300	0.10	1640	10 \times 10.2
	1000	VPT1A102M1012	13	4800	0.10	2000	10 \times 12.5
	1500	VPT1A152M1012	13	4900	0.10	3000	10 \times 12.5
16	100	VPT1C101M0809	18	3400	0.10	320	8 \times 9
	150	VPT1C151M0808	28	2800	0.10	480	8 \times 9
	180	VPT1C181M0808	25	3600	0.10	576	8 \times 9
	220	VPT1C221M0809	18	3500	0.10	704	8 \times 9
	270	VPT1C271M0809	22	3300	0.10	864	8 \times 9
	330	VPT1C331M0812	16	4520	0.10	1056	8 \times 12
	470	VPT1C471M0812	16	4520	0.10	1504	8 \times 12
	560	VPT1C561M0812	14	4950	0.10	1792	8 \times 12
	560	VPT1C561M1012	14	4720	0.10	1792	10 \times 12.5
	680	VPT1C681M1012	14	4100	0.10	2176	10 \times 12.5
	820	VPT1C821M1012	18	4200	0.10	2624	10 \times 12.5
	1000	VPT1C102M1012	14	5400	0.10	3200	10 \times 12.5

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20	39	VPT1D390M0808	45	2000	0.10	156	8 \times 9
	47	VPT1D470M0808	45	2000	0.10	188	8 \times 9
	56	VPT1D560M0810	40	2400	0.10	224	8 \times 10.2
	68	VPT1D680M0810	40	2600	0.10	272	8 \times 10.2
	82	VPT1D820M0810	45	2400	0.10	328	8 \times 10.2
	100	VPT1D101M0812	22	3200	0.10	400	8 \times 12
	120	VPT1D121M1010	35	2800	0.10	480	10 \times 10.2
	150	VPT1D151M1012	20	4320	0.10	600	10 \times 12.5
25	10	VPT1E100M0808	60	1600	0.10	50	8 \times 9
	22	VPT1E220M0810	50	2200	0.10	110	8 \times 10.2
	33	VPT1E330M0812	30	2800	0.10	165	8 \times 12
	47	VPT1E470M0812	30	3000	0.10	235	8 \times 12
	47	VPT1E470M1010	45	2400	0.10	235	10 \times 10.2
	56	VPT1E560M1012	28	3800	0.10	280	10 \times 12.5
	100	VPT1E121M0809	40	2000	0.10	500	8 \times 9
	150	VPT1E151M0812	35	2400	0.10	750	8 \times 12
	220	VPT1E221M1012	30	2400	0.10	1100	8 \times 12
	270	VPT1E271M1012	28	3800	0.10	1350	10 \times 12.5
	330	VPT1E331M1012	28	3800	0.10	1650	10 \times 12.5
	470	VPT1E471M1012	28	3800	0.10	2350	10 \times 12.5

■ 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