

VPZ Series 片式导电聚合物固体铝电解电容器极低 ESR 品

Extra Low ESR . Conductive Polymer . For SMD Type

- 高频特低阻抗 Extra Low ESR at high frequency range
- 高纹波 High ripple current capability
- 105°C,2000 小时 105°C,2000 hours assured
- 符合 AEC-Q200 AEC-Q200 Compliant

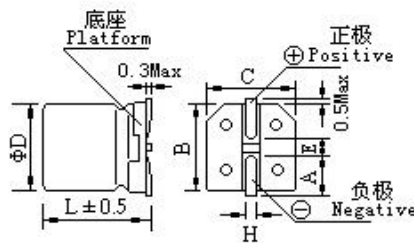


主要技术性能 Specifications

项目 Items	主要特性 Performance Characteristics	
使用温度范围 Operating Temperature Range	-55~+105°C	
额定电压范围 Rated Voltage Range	2.5~25V.DC	
标称容量允许偏差 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 .	
	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
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 .	
	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

外形图及尺寸 Case size table

mm



φD	L	A	B	C	H	E±0.2
6.3	6.0	2.4	6.6	6.6	0.5~0.8	2.2
6.3	7.7	2.4	6.6	6.6	0.5~0.8	2.2
8	9.0	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

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额定电压 Rated Voltage (V)	标称容量 Capacitance (μ F)	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 $^{\circ}$ C, 100Khz)	损耗 Tan δ (120Hz)	漏电流 (max) (μ A)	尺寸 Φ D \times L (mm)
2.5	150	VPZ0E151M0506	21	2670	0.12	75	5 \times 6
	180	VPZ0E181M0506	21	2670	0.12	90	5 \times 6
	220	VPZ0E221M0506	21	3400	0.12	110	5 \times 6
	270	VPZ0E271M0506	21	3400	0.12	135	5 \times 6
	390	VPZ0E391M0606	15	3400	0.12	195	6.3 \times 6
	470	VPZ0E471M0606	15	3400	0.12	235	6.3 \times 6
	560	VPZ0E561M0605	15	3400	0.12	280	6.3 \times 6
	680	VPZ0E681M0607	13	3700	0.12	340	6.3 \times 7.7
	820	VPZ0E821M0809	12	4260	0.12	410	8 \times 9
	1000	VPZ0E102M0809	12	4260	0.12	500	8 \times 9
	1500	VPZ0E152M0810	10	5220	0.12	750	8 \times 10.2
	1800	VPZ0E182M1010	10	5220	0.12	900	10 \times 10.2
	2200	VPZ0E222M1010	10	5500	0.12	1100	10 \times 10.2
	2700	VPZ0E272M1012	9	5800	0.12	1350	10 \times 12.5
	3300	VPZ0E332M1012	9	5800	0.12	1650	10 \times 12.5
3900	VPZ0E392M1012	9	5800	0.12	1950	10 \times 12.5	
4	100	VPZ0G101M0506	22	2610	0.12	80	5 \times 6
	150	VPZ0G151M0506	22	2610	0.12	120	5 \times 6
	270	VPZ0G271M0606	15	3200	0.12	216	6.3 \times 6
	330	VPZ0G331M0606	15	3300	0.12	264	6.3 \times 6
	390	VPZ0G391M0607	14	3470	0.12	312	6.3 \times 7.7
	470	VPZ0G471M0609	14	3470	0.12	376	6.3 \times 7.7
	470	VPZ0G471M0808	14	3950	0.12	448	8 \times 9
	560	VPZ0G561M0808	14	4000	0.12	448	8 \times 9
	680	VPZ0G681M0809	13	3950	0.12	544	8 \times 9
	820	VPZ0G821M0809	13	4080	0.12	656	8 \times 9
	1000	VPZ0G102M0810	10	5220	0.12	800	8 \times 10.2
	1200	VPZ0G102M0812	9	5400	0.12	960	8 \times 12
	1200	VPZ0G102M1010	10	5500	0.12	960	10 \times 10.2
	1500	VPZ0G152M0812	9	5200	0.12	1200	8 \times 12
	1500	VPZ0G152M1010	10	5500	0.12	1200	10 \times 10.2
	1800	VPZ0G182M1010	10	5500	0.12	1440	10 \times 10.2
	1800	VPZ0G182M1012	9	5600	0.12	1440	10 \times 12.5
2200	VPZ0G222M1012	9	5700	0.12	1760	10 \times 12.5	
2700	VPZ0G272M1012	9	5700	0.12	2160	10 \times 12.5	
6.3	82	VPZ0J820M0506	24	2500	0.12	103	5 \times 6
	100	VPZ0J101M0506	24	2500	0.12	126	5 \times 6
	120	VPZ0J121M0506	24	2500	0.12	151	5 \times 6
	220	VPZ0J221M0606	15	3200	0.12	277	6.3 \times 6
	270	VPZ0J271M0606	15	3200	0.12	340	6.3 \times 6
	330	VPZ0J331M0606	15	3200	0.12	416	6.3 \times 6
	390	VPZ0J391M0607	14	3470	0.12	491	6.3 \times 7.7
	470	VPZ0J471M0607	14	3470	0.12	592	6.3 \times 7.7

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额定电压 Rated Voltage (V)	标称容量 Capacitance (μ F)	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 $^{\circ}$ C, 100Khz)	损耗 Tan δ (120Hz)	漏电流 (max) (μ A)	尺寸 Φ D \times L (mm)
6.3	470	VPZ0J471M0809	13	3950	0.12	592	8 \times 9
	560	VPZ0J561M0809	13	4080	0.12	706	8 \times 9
	680	VPZ0J681M0809	13	4080	0.12	857	8 \times 9
	820	VPZ0J821M0810	12	4770	0.12	1033	8 \times 10.2
	820	VPZ0J821M0812	10	5150	0.12	1033	8 \times 12
	1000	VPZ0J102M0812	10	5150	0.12	1260	8 \times 12
	1200	VPZ0J122M1010	12	5025	0.12	1512	10 \times 10.2
	1500	VPZ0J152M1010	12	5025	0.12	1890	10 \times 10.2
	1500	VPZ0J152M1012	10	5500	0.12	1890	10 \times 12.5
	1800	VPZ0J182M1012	11	5200	0.12	2268	10 \times 12.5
	2200	VPZ0J202M1012	11	5200	0.12	2772	10 \times 12.5
10	47	VPZ1A470M0506	28	2310	0.12	94	5 \times 6
	56	VPZ1A680M0506	28	2310	0.12	112	5 \times 6
	68	VPZ1A680M0506	28	2310	0.12	136	5 \times 6
	82	VPZ1A820M0606	25	2200	0.12	164	6.3 \times 6
	100	VPZ1A101M0606	25	2200	0.12	200	6.3 \times 6
	120	VPZ1A121M0606	25	2530	0.12	240	6.3 \times 6
	150	VPZ1A151M0607	21	2880	0.12	300	6.3 \times 7.7
	220	VPZ1A221M0808	21	3220	0.12	440	8 \times 9
	270	VPZ1A271M0808	21	3220	0.12	540	8 \times 9
	330	VPZ1A331M0809	19	3390	0.12	660	8 \times 9
	390	VPZ1A331M0810	17	4000	0.12	780	8 \times 10.2
	470	VPZ1A471M0812	14	4080	0.12	940	8 \times 12
	560	VPZ1A561M0812	14	4080	0.12	1120	8 \times 12
	680	VPZ1A681M1010	13	4820	0.12	1360	10 \times 10.2
	820	VPZ1A821M0812	14	4520	0.12	1640	8 \times 12
	1000	VPZ1A102M0812	14	4520	0.12	2000	8 \times 12
	1000	VPZ1A102M1012	12	5100	0.12	2000	10 \times 12.5
1500	VPZ1A152M1012	12	5100	0.12	3000	10 \times 12.5	
1800	VPZ1A182M1012	12	5100	0.12	3600	10 \times 12.5	
16	33	VPZ1C330M0506	35	2070	0.12	106	5 \times 6
	39	VPZ1C390M0506	35	2070	0.12	125	5 \times 6
	47	VPZ1C470M0606	25	2400	0.12	150	6.3 \times 6
	68	VPZ1C680M0606	28	2390	0.12	218	6.3 \times 6
	82	VPZ1C820M0606	24	2700	0.12	262	6.3 \times 6
	100	VPZ1C101M0606	24	2700	0.12	320	6.3 \times 6
	150	VPZ1C151M0606	24	2700	0.12	480	6.3 \times 6
	180	VPZ1C181M0607	22	2690	0.12	576	6.3 \times 7.7
	220	VPZ1C221M0607	22	2690	0.12	704	6.3 \times 7.7
	220	VPZ1C221M089	16	3500	0.12	704	8 \times 9
	270	VPZ1C271M0809	16	3500	0.12	864	8 \times 9
	270	VPZ1C271M0812	16	4070	0.12	864	8 \times 12
	330	VPZ1C331M0812	14	4520	0.12	1056	8 \times 12
	330	VPZ1C331M1010	16	4350	0.12	1056	10 \times 10.2

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16	470	VPZ1C471M0812	14	4520	0.12	1504	8 \times 12
	470	VPZ1C471M1012	12	4720	0.12	1504	10 \times 12.5
	560	VPZ1C561M1012	12	4720	0.12	1792	10 \times 12.5
	680	VPZ1C681M1012	12	5100	0.12	2176	10 \times 12.5
	820	VPZ1C821M1012	12	5100	0.12	2624	10 \times 12.5
	1000	VPZ1C102M1012	12	5100	0.12	3200	10 \times 12.5
25	10	VPZ1E100M0506	45	2000	0.12	50	5 \times 6
	22	VPZ1E220M0506	45	2000	0.12	110	5 \times 6
	22	VPZ1E220M0605	40	2000	0.12	110	6.3 \times 6
	33	VPZ1E330M0607	45	2670	0.12	165	6.3 \times 7
	39	VPZ1E390M0607	30	2670	0.12	195	6.3 \times 7
	47	VPZ1E470M0607	30	2670	0.12	235	6.3 \times 7.7
	100	VPZ1E101M0607	30	2670	0.12	500	6.3 \times 7.7
	100	VPZ1E121M0809	22	3500	0.12	500	8 \times 9
	100	VPZ1E101M0812	20	4200	0.12	500	8 \times 12
	150	VPZ1E151M0812	20	4200	0.12	750	8 \times 12
	150	VPZ1E151M0812	20	4200	0.12	750	8 \times 12
	220	VPZ1E221M0812	20	4200	0.12	1100	8 \times 12
	220	VPZ1E221M1012	20	4800	0.12	1100	10 \times 12.5
	270	VPZ1E271M1012	20	4800	0.12	1350	10 \times 12.5
	330	VPZ1E331M1012	20	4800	0.12	1650	10 \times 12.5
470	VPZ1E471M1012	20	4800	0.12	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