

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 Aluminum Solid Electrolytic Capacitor of SMD Type

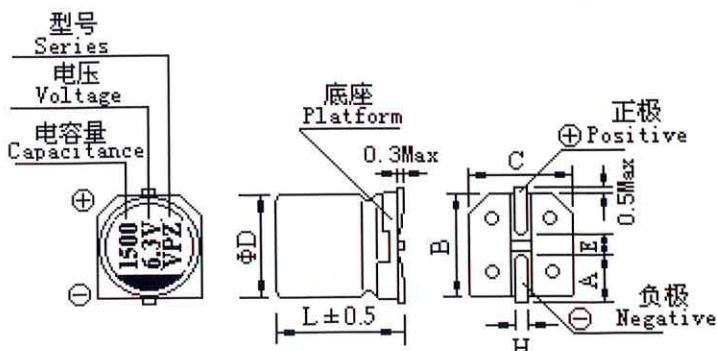
- 高频特低阻抗 Extra Low ESR at high frequency range
- 高纹波 High ripple current capability
- 105°C,2000 小时 105°C,2000 hours assured



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 . | |
| | 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 |
| 5 | 6.0 | 2.1 | 5.3 | 5.3 | 0.5~0.8 | 1.3 |
| 6.3 | 6.0 | 2.4 | 6.6 | 6.6 | 0.5~0.8 | 2.2 |
| 6.3 | 7.0 | 2.4 | 6.6 | 6.6 | 0.5~0.8 | 2.2 |
| 6.3 | 8.0 | 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 | 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 |

VPZ Series

■ 编码和规格 Part number & Specifications

| 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°C, 100Khz) | 损耗 Tan δ (120Hz) | 漏电流 (max) (μ A) | 尺寸 Φ D×L (mm) | |
|------------------------------|-----------------------------------|---------------------|---|-------------------------------------|-------------------------------|----------------------------|--------------------------|-------|
| 2.5 | 150 | VPZ0E151M0506 | 25 | 1970 | 0.12 | 75 | 5×6 | |
| | 220 | VPZ0E221M0606 | 25 | 2610 | 0.12 | 110 | 6.3×6 | |
| | 270 | VPZ0E271M0606 | 20 | 2610 | 0.12 | 135 | 6.3×6 | |
| | 560 | VPZ0E561M0809 | 16 | 3900 | 0.12 | 280 | 8×9 | |
| | 680 | VPZ0E681M0809 | 16 | 3900 | 0.12 | 340 | 8×9 | |
| | 820 | VPZ0E821M0809 | 16 | 4080 | 0.12 | 410 | 8×9 | |
| | 1000 | VPZ0E102M0812 | 14 | 4520 | 0.12 | 500 | 8×11.8 | |
| | 1500 | VPZ0E152M0812 | 14 | 4820 | 0.12 | 750 | 8×11.8 | |
| | 1800 | VPZ0E182M1012 | 12 | 5440 | 0.12 | 900 | 10×12.7 | |
| | 2200 | VPZ0E222M1012 | 12 | 5440 | 0.12 | 1100 | 10×12.7 | |
| | 2700 | VPZ0E272M1012 | 12 | 5440 | 0.12 | 1350 | 10×12.7 | |
| | 3300 | VPZ0E332M1012 | 12 | 5440 | 0.12 | 1650 | 10×12.7 | |
| | 3900 | VPZ0E392M1012 | 12 | 5440 | 0.12 | 1950 | 10×12.7 | |
| 4 | 100 | VPZ0G101M0506 | 28 | 1970 | 0.12 | 80 | 5×6 | |
| | 470 | VPZ0G471M0609 | 16 | 2610 | 0.12 | 376 | 6.3×9 | |
| | 560 | VPZ0G561M0809 | 16 | 4080 | 0.12 | 448 | 8×9 | |
| | 680 | VPZ0G681M0809 | 16 | 4080 | 0.12 | 544 | 8×9 | |
| | 820 | VPZ0G821M0809 | 16 | 4080 | 0.12 | 656 | 8×9 | |
| | 1000 | VPZ0G102M0812 | 14 | 4520 | 0.12 | 800 | 8×11.8 | |
| | 1500 | VPZ0G152M0812 | 14 | 4520 | 0.12 | 1200 | 8×11.8 | |
| | 1500 | VPZ0G152M1012 | 12 | 5440 | 0.12 | 1200 | 10×12.7 | |
| | 1800 | VPZ0G182M1012 | 12 | 5440 | 0.12 | 1440 | 10×12.7 | |
| | 2200 | VPZ0G222M1012 | 12 | 5440 | 0.12 | 1760 | 10×12.7 | |
| | 2700 | VPZ0G272M1012 | 12 | 5440 | 0.12 | 2160 | 10×12.7 | |
| | 6.3 | 82 | VPZ0J820M0606 | 28 | 1800 | 0.12 | 103 | 6.3×6 |
| | | 100 | VPZ0J101M0606 | 23 | 2390 | 0.12 | 126 | 6.3×6 |
| 270 | | VPZ0J271M0609 | 16 | 2990 | 0.12 | 340 | 6.3×9 | |
| 330 | | VPZ0J331M0609 | 16 | 2990 | 0.12 | 416 | 6.3×9 | |
| 390 | | VPZ0J391M0609 | 16 | 2990 | 0.12 | 491 | 6.3×9 | |
| 470 | | VPZ0J471M0609 | 16 | 2990 | 0.12 | 592 | 6.3×9 | |
| 470 | | VPZ0J471M0809 | 16 | 4080 | 0.12 | 592 | 8×9 | |
| 560 | | VPZ0J561M0809 | 16 | 4080 | 0.12 | 706 | 8×9 | |
| 680 | | VPZ0J681M0809 | 16 | 4080 | 0.12 | 857 | 8×9 | |
| 820 | | VPZ0J821M0812 | 14 | 4520 | 0.12 | 1033 | 8×11.8 | |
| 1000 | | VPZ0J102M0812 | 14 | 4520 | 0.12 | 1260 | 8×11.8 | |
| 1500 | | VPZ0J152M1012 | 12 | 5440 | 0.12 | 1890 | 10×12.7 | |
| 1800 | | VPZ0J182M1012 | 12 | 5440 | 0.12 | 2268 | 10×12.7 | |
| 2200 | VPZ0J202M1012 | 12 | 5440 | 0.12 | 2772 | 10×12.7 | | |
| 10 | 47 | VPZ1A470M0606 | 25 | 2200 | 0.12 | 94 | 6.3×6 | |
| | 68 | VPZ1A680M0606 | 25 | 2200 | 0.12 | 136 | 6.3×6 | |
| | 82 | VPZ1A820M0606 | 25 | 2200 | 0.12 | 164 | 6.3×6 | |
| | 100 | VPZ1A101M0606 | 25 | 2200 | 0.12 | 200 | 6.3×6 | |
| | 150 | VPZ1A151M0809 | 16 | 4080 | 0.12 | 300 | 8×9 | |
| | 220 | VPZ1A221M0809 | 16 | 4080 | 0.12 | 440 | 8×9 | |
| | 270 | VPZ1A271M0609 | 16 | 2690 | 0.12 | 540 | 6.3×9 | |
| | 330 | VPZ1A331M0809 | 16 | 4080 | 0.12 | 660 | 8×9 | |
| | 470 | VPZ1A471M0812 | 14 | 4080 | 0.12 | 940 | 8×11.8 | |
| | 470 | VPZ1A471M1012 | 12 | 4080 | 0.12 | 940 | 10×12.7 | |
| | 560 | VPZ1A561M0812 | 14 | 4080 | 0.12 | 1120 | 8×11.8 | |
| 560 | VPZ1A561M1012 | 12 | 4080 | 0.12 | 1120 | 10×12.7 | | |

VPZ Series

■ 编码和规格 Part number & Specifications

| 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) |
|------------------------------|-----------------------------------|---------------------|---|--|-------------------------------|----------------------------|-----------------------------------|
| 10 | 680 | VPZ1A681M0812 | 14 | 4520 | 0.12 | 1360 | 8 \times 11.8 |
| | 820 | VPZ1A821M0812 | 14 | 4520 | 0.12 | 1640 | 8 \times 11.8 |
| | 1000 | VPZ1A102M0812 | 14 | 4520 | 0.12 | 2000 | 8 \times 11.8 |
| | 1000 | VPZ1A102M1012 | 12 | 5100 | 0.12 | 2000 | 10 \times 12.7 |
| | 1500 | VPZ1A152M1012 | 12 | 5100 | 0.12 | 3000 | 10 \times 12.7 |
| | 1800 | VPZ1A182M1012 | 12 | 5100 | 0.12 | 3600 | 10 \times 12.7 |
| 16 | 33 | VPZ1C330M0606 | 25 | 2400 | 0.12 | 106 | 6.3 \times 6 |
| | 39 | VPZ1C390M0606 | 25 | 2400 | 0.12 | 125 | 6.3 \times 6 |
| | 47 | VPZ1C470M0606 | 25 | 2400 | 0.12 | 150 | 6.3 \times 6 |
| | 68 | VPZ1C680M0609 | 25 | 2690 | 0.12 | 218 | 6.3 \times 9 |
| | 82 | VPZ1C820M0609 | 23 | 2690 | 0.12 | 262 | 6.3 \times 9 |
| | 100 | VPZ1C101M0609 | 22 | 2690 | 0.12 | 320 | 6.3 \times 9 |
| | 100 | VPZ1C101M0809 | 16 | 3400 | 0.12 | 320 | 8 \times 9 |
| | 150 | VPZ1C151M0609 | 22 | 2690 | 0.12 | 480 | 6.3 \times 9 |
| | 180 | VPZ1C181M0809 | 16 | 3500 | 0.12 | 576 | 8 \times 9 |
| | 180 | VPZ1C181M0812 | 14 | 3640 | 0.12 | 576 | 8 \times 11.8 |
| | 220 | VPZ1C221M0609 | 22 | 2690 | 0.12 | 704 | 6.3 \times 9 |
| | 220 | VPZ1C221M0809 | 16 | 3500 | 0.12 | 704 | 8 \times 9 |
| | 220 | VPZ1C221M0812 | 14 | 3640 | 0.12 | 704 | 8 \times 11.8 |
| | 270 | VPZ1C271M0809 | 16 | 3500 | 0.12 | 864 | 8 \times 9 |
| | 270 | VPZ1C271M0812 | 14 | 3640 | 0.12 | 864 | 8 \times 11.8 |
| | 330 | VPZ1C331M0812 | 14 | 4520 | 0.12 | 1056 | 8 \times 11.8 |
| | 330 | VPZ1C331M1012 | 12 | 4720 | 0.12 | 1056 | 10 \times 12.7 |
| | 470 | VPZ1C471M0812 | 14 | 4520 | 0.12 | 1504 | 8 \times 11.8 |
| | 470 | VPZ1C471M1012 | 12 | 4720 | 0.12 | 1504 | 10 \times 12.7 |
| | 560 | VPZ1C561M1012 | 12 | 4720 | 0.12 | 1792 | 10 \times 12.7 |
| 680 | VPZ1C681M1012 | 12 | 5100 | 0.12 | 2176 | 10 \times 12.7 | |
| 820 | VPZ1C821M1012 | 12 | 5100 | 0.12 | 2624 | 10 \times 12.7 | |
| 1000 | VPZ1C102M1012 | 12 | 5100 | 0.12 | 3200 | 10 \times 12.7 | |
| 25 | 10 | VPZ1E100M0506 | 55 | 280 | 0.12 | 50 | 5 \times 6 |
| | 22 | VPZ1E220M0506 | 55 | 420 | 0.12 | 110 | 5 \times 6 |
| | 22 | VPZ1E220M0605 | 45 | 480 | 0.12 | 110 | 6.3 \times 6 |
| | 33 | VPZ1E330M0607 | 45 | 640 | 0.12 | 165 | 6.3 \times 7 |
| | 39 | VPZ1E390M0607 | 45 | 700 | 0.12 | 195 | 6.3 \times 7 |
| | 47 | VPZ1E470M0608 | 45 | 800 | 0.12 | 235 | 6.3 \times 8 |
| | 100 | VPZ1E101M0608 | 45 | 1200 | 0.12 | 500 | 6.3 \times 8 |
| | 100 | VPZ1E121M0809 | 40 | 2000 | 0.12 | 500 | 8 \times 9 |
| | 100 | VPZ1E101M0812 | 35 | 3600 | 0.12 | 500 | 8 \times 11.8 |
| | 150 | VPZ1E151M0812 | 35 | 3600 | 0.12 | 750 | 8 \times 11.8 |
| | 150 | VPZ1E151M0812 | 35 | 3600 | 0.12 | 750 | 8 \times 11.8 |
| | 220 | VPZ1E221M0812 | 30 | 3600 | 0.12 | 1100 | 8 \times 11.8 |
| | 220 | VPZ1E221M1012 | 30 | 2800 | 0.12 | 1100 | 10 \times 12.7 |
| | 270 | VPZ1E271M1012 | 30 | 2800 | 0.12 | 1350 | 10 \times 12.7 |
| | 330 | VPZ1E331M1012 | 30 | 2800 | 0.12 | 1650 | 10 \times 12.7 |
| | 470 | VPZ1E471M1012 | 30 | 2800 | 0.12 | 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 |