

**VZ series**

- Endurance: +105°C 2,000 hours
- Standard substance
- Recommended Applications: Display Card & System Board
- **RoHS Compliant and lead-free**

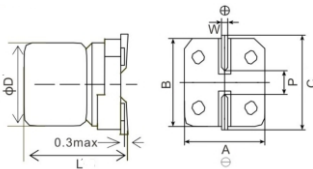


**SPECIFICATIONS**

Items	Characteristics									
Category Temperature Range	-55~+105°C									
Rated Working Voltage Range	2.5~100 V <sub>dc</sub>									
Nominal Capacitance Range	22~2200μF									
Capacitance Tolerance	±20%(M) (at 20°C,120Hz)									
DC Leakage Current	I 0.2CV or 500μA, whichever is greater. Where, I:Max.leakage current (μA),C:Nominal capacitance (μF),V: Rated voltage (V) (at 20°C after 2 minutes)									
Dissipation Factor (tan δ)	Rated Voltage(V <sub>dc</sub> )	2.5	6.3	10	16	25	35	50	63	
	tan δ (max.)	0.08		0.12						
ESR(100kHz,20°C)	Value in characteristics table									
Temperature Characteristic (Impedance Ratio at 100kHz)	Z(+105°C)/Z(+20°C) 1.25 Z(-55°C)/Z(+20°C) 1.25									
Endurance	After applying rated voltage for 2,000 hours at 105°C, the capacitors shall meet the following requirements.									
	Appearance	No significant damage								
	Capacitance Change	±20% of the initial value								
	D.F. (tan δ)	150% of the initial specified value								
	ESR	150% of the initial specified value								
	Leakage Current	The initial specified value								
Humidity Test	After subjecting to 90~95% RH for 2,000 hours at 60°C without voltage applied, the capacitors shall meet the specified values for the Endurance characteristics listed above.									
Surge Test	After subjecting to 1,000 cycles each consisting of charge with the surge voltage specified at normal temperature for 30 seconds through a protective resistor and discharge for 5 minutes 30 seconds, the capacitors shall meet the following requirements.									
	Appearance	No significant damage								
	Capacitance Change	±20% of the initial value								
	D.F. (tan δ)	150% of the initial specified value								
	ESR	150% of the initial specified value								
	Leakage Current	The initial specified value								

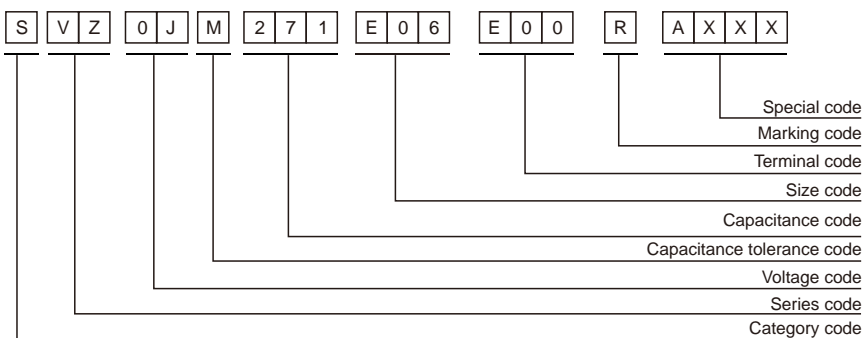
\*Note: If any doubt arises, measure the leakage current after the following voltage treatment.  
Voltage treatment: DC rated voltage is applied to the capacitors for 120 minutes at 105°C.

**DIMENSIONS[mm]**



D	6.3	8	10
P±0.2	1.9	3.1	4.5
A±0.2	6.6	8.3	10.3
B±0.2	6.6	8.3	10.3
C±0.2	7.2	9.0	11.0
W	0.5~0.8	0.7~1.1	0.7~1.1
ØD'	ØD-0.1~+0.5	ØD-0.1~+0.5	ØD-0.1~+0.5
L'	L±0.5	L±0.3	L±0.3

**PART NUMBERING SYSTEM**



**VZ series**

■ STANDARD RATINGS

VDC (SV)	Cap (μF)	Size DxL(mm)	ESR (mΩ, 20°C, 100kHz) (max.)	Rated ripple current (mArms/105°C, 100kHz)	Leakage Current (μA)(max.)	Part Number
2.5 (2.9)	330	6.3x6	20	2700	500	SVZ0EM331E06E00RAXXX
	390	6.3x6	20	2800	500	SVZ0EM391E06E00RAXXX
	470	6.3x6	20	2900	500	SVZ0EM471E06E00RAXXX
	560	6.3x6	20	3000	500	SVZ0EM561E06E00RAXXX
	680	6.3x9	15	4300	500	SVZ0EM681E09E00RAXXX
6.3 (7.2)	220	6.3x6	20	2800	500	SVZ0JM221E06E00RAXXX
	270	6.3x6	20	3000	500	SVZ0JM271E06E00RAXXX
	330	6.3x6	20	2100	500	SVZ0JM331E06E00RAXXX
	470	6.3x9	15	3500	592	SVZ0JM471E09E00RAXXX
	560	6.3x9	15	3700	706	SVZ0JM561E09E00RAXXX
	1000	8x11.5	15	4300	1260	SVZ0JM102FBRE00RAXXX
	1500	8x11.5	15	4400	1890	SVZ0JM152FBRE00RAXXX
10 (11.5)	2200	10x12.5	15	5600	2772	SVZ0JM222GCRE00RAXXX
	120	6.3x6	30	2700	500	SVZ1AM121E06E00RAXXX
	220	6.3x6	30	2700	500	SVZ1AM221E06E00RAXXX
	330	6.3x9	20	3000	500	SVZ1AM221E09E00RAXXX
	330	6.3x9	20	3100	660	SVZ1AM331E09E00RAXXX
	470	6.3x9	30	3400	940	SVZ1AM471E09E00RAXXX
	560	8x9.5	22	3400	940	SVZ1AM471F9RE00RAXXX
	560	8x11.5	20	3600	1120	SVZ1AM561FBRE00RAXXX
	1000	10x12.5	20	5000	1120	SVZ1AM561GCRE00RAXXX
	1000	8x11.5	15	4200	2000	SVZ1AM102FBRE00RAXXX
16 (18.4)	1500	10x12.5	15	4400	2000	SVZ1AM102GCRE00RAXXX
	1500	10x12.5	15	4400	3000	SVZ1AM152GCRE00RAXXX
	47	6.3x6	40	1700	500	SVZ1CM470E06E00RAXXX
	68	6.3x6	40	2000	500	SVZ1CM680E06E00RAXXX
	100	6.3x6	30	2400	500	SVZ1CM101E06E00RAXXX
	150	6.3x6	30	2400	500	SVZ1CM151E06E00RAXXX
	150	6.3x9	25	2600	500	SVZ1CM151E09E00RAXXX
	180	6.3x6	60	2500	576	SVZ1CM181E06E00RAXXX
	180	6.3x9	25	2700	576	SVZ1CM181F09E00RAXXX
	220	6.3x9	25	2500	704	SVZ1CM221E09E00RAXXX
	270	6.3x9	25	2600	864	SVZ1CM271E09E00RAXXX
	270	8x9.5	25	2800	864	SVZ1CM271F9RE00RAXXX
	330	6.3x9	25	2600	1056	SVZ1CM331E09E00RAXXX
	330	8x11.5	20	4000	1056	SVZ1CM331FBRE00RAXXX
	560	10x12.5	20	5000	1056	SVZ1CM331GCRE00RAXXX
25 (28.8)	680	8x11.5	20	3500	1792	SVZ1CM561FBRE00RAXXX
	1000	10x12.5	20	4000	2176	SVZ1CM681GCRE00RAXXX
	1000	10x12.5	20	4100	3200	SVZ1CM102GCRE00RAXXX
	22	6.3x6	80	1600	500	SVZ1EM220E06E00RAXXX
	27	6.3x6	50	1100	500	SVZ1EM270E06E00RAXXX
	47	6.3x6	50	1800	500	SVZ1EM470E06E00RAXXX
	47	6.3x9	35	2000	500	SVZ1EM470E09E00RAXXX
	56	6.3x6	50	1800	500	SVZ1EM560E06E00RAXXX
	68	6.3x6	50	1800	500	SVZ1EM680E06E00RAXXX
	100	6.3x9	30	2400	500	SVZ1EM101E09E00RAXXX
	100	6.3x6	50	2100	500	SVZ1EM101E06E00RAXXX
	150	6.3x9	30	2500	750	SVZ1EM151E09E00RAXXX
	220	6.3x9	30	2500	1100	SVZ1EM221E09E00RAXXX
	330	8x11.5	30	2600	1100	SVZ1EM221FBRE00RAXXX
	330	10x12.5	22	2800	1650	SVZ1EM331GCRE00RAXXX
35 (40.3)	470	8x11.5	30	2700	500	SVZ1EM331FBRE00RAXXX
	470	8x11.5	30	2800	2350	SVZ1EM471FBRE00RAXXX
	560	10x12.5	22	3100	2350	SVZ1EM471GCRE00RAXXX
	680	10x12.5	22	3300	2800	SVZ1EM561GCRE00RAXXX
	680	10x12.5	22	3300	3400	SVZ1EM681GCRE00RAXXX
	22	6.3x6	60	1100	500	SVZ1VM220E06E00RAXXX
	27	6.3x6	60	1100	500	SVZ1VM270E06E00RAXXX
	33	6.3x6	60	1100	500	SVZ1VM330E06E00RAXXX
	47	6.3x9	50	1500	500	SVZ1VM470E09E00RAXXX
	68	6.3x6	45	1100	500	SVZ1VM470E06E00RAXXX
	68	6.3x6	45	1100	500	SVZ1VM680E06E00RAXXX
	68	6.3x9	40	1800	500	SVZ1VM680E09E00RAXXX
	100	6.3x9	40	2100	700	SVZ1VM101E09E00RAXXX
	100	8x9.5	40	2800	700	SVZ1VM101F9RE00RAXXX
	150	8x11.5	30	3000	700	SVZ1VM101FBRE00RAXXX
220	8x11.5	30	3000	1050	SVZ1VM151FBRE00RAXXX	
50 (57.5)	270	8x11.5	30	2500	1890	SVZ1VM271FBRE00RAXXX
	330	10x12.5	30	2700	1890	SVZ1VM271GCRE00RAXXX
	330	10x12.5	30	2700	2310	SVZ1VM331GCRE00RAXXX
	470	10x12.5	30	3000	3290	SVZ1VM471GCRE00RAXXX
	22	6.3x6	80	800	500	SVZ1HM220E06E00RAXXX
	33	6.3x6	80	850	500	SVZ1HM330E06E00RAXXX
	47	6.3x9	60	1400	500	SVZ1HM470E09E00RAXXX
	68	8x11.5	30	2000	680	SVZ1HM680FBRE00RAXXX
	82	10x12.5	30	2000	820	SVZ1HM820GCRE00RAXXX
	100	8x11.5	30	2000	820	SVZ1HM820FBRE00RAXXX
	100	8x11.5	30	2000	1000	SVZ1HM101FBRE00RAXXX
	120	10x12.5	30	2100	1000	SVZ1HM101GCRE00RAXXX
	150	8x11.5	30	2000	1200	SVZ1HM121FBRE00RAXXX
	150	10x12.5	30	2100	1500	SVZ1HM151GCRE00RAXXX
	220	10x12.5	30	2300	2200	SVZ1HM221GCRE00RAXXX

Conductive Polymer SMD Type

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VDC (SV)	Cap (μF)	Size DxL(mm)	ESR (mΩ, 20°C, 100kHz) (max.)	Rated ripple current (mA rms/105°C, 100kHz)	Leakage Current (μA)(max.)	Part Number
63 (72.5)	22	6.3x6	80	450	500	SVZ1JM220E06E00RAXXX
	33	6.3x9	60	500	500	SVZ1JM330E09E00RAXXX
	47	8x9.5	60	1000	592	SVZ1JM470F9RE00RAXXX
	56	8x11.5	40	1400	706	SVZ1JM560FBRE00RAXXX
	100	10x12.5	40	1600	1260	SVZ1JM101GCRE00RAXXX
80 (92.0)	27	8x11.5	50	600	500	SVZ1BM270FBRE00RAXXX
	47	10x12.5	50	900	752	SVZ1BM470GCRE00RAXXX
	68	10x12.5	50	900	1088	SVZ1BM680GCRE00RAXXX
100 (115.0)	22	8x11.5	50	600	500	SVZ1KM220FBRE00RAXXX
	47	10x12.5	50	900	940	SVZ1KM470GCRE00RAXXX

Specifications subject to change without notice.