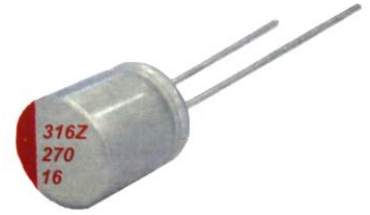


**PZ series**

**+105°C, Low ESR(低阻抗)**

**◆ FEATURES**

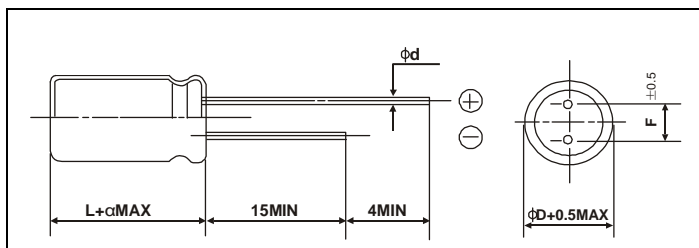
- Low ESR
- Endurance:2000 hours at 105°C
- RoHS Compliant and lead-free.
- Recommended Application: System board, Display Card, Small Charger, Intelligent TV.



**◆ SPECIFICATIONS**

Items	Characteristics														
Category Temperature Range	-55~+105 °C														
Rated Voltage Range	2.5~25V.DC														
Nominal Capacitance Range	10~2200μ F														
Capacitance Tolerance	±20%(120Hz,+20°C)														
Leakage Current(MAX, 20°C)	I=0.2CV or 500uA, whichever is greater. after 2 minutes with rated working voltage														
Dissipation Factor(MAX) Tanδ (20°C, 120Hz)	<table border="1" style="width: 100%; text-align: center;"> <tr> <td>Rated Voltage(V)</td> <td>2.5</td> <td>4</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> </tr> <tr> <td>Tanδ (Max)</td> <td colspan="3">0.08</td> <td colspan="3">0.12</td> </tr> </table>	Rated Voltage(V)	2.5	4	6.3	10	16	25	Tanδ (Max)	0.08			0.12		
	Rated Voltage(V)	2.5	4	6.3	10	16	25								
Tanδ (Max)	0.08			0.12											
ESR(100K~300KHz, 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														
Load Life	After applying rated voltage with max ripple current for 2000 hrs at 105°C, the capacitors shall meet the following requirements														
	<table border="1" style="width: 100%;"> <tr> <td>Capacitance Change</td> <td>Within ±20% of the initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 150% of the specified value</td> </tr> <tr> <td>ESR</td> <td>Not more than 150% of the specified value</td> </tr> <tr> <td>Leakage Current</td> <td>Not more than the specified value</td> </tr> </table>	Capacitance Change	Within ±20% of the initial value	Dissipation Factor	Not more than 150% of the specified value	ESR	Not more than 150% of the specified value	Leakage Current	Not more than the specified value						
	Capacitance Change	Within ±20% of the initial value													
	Dissipation Factor	Not more than 150% of the specified value													
	ESR	Not more than 150% of the specified value													
Leakage Current	Not more than the specified value														
Humidity Test	After subjecting 90 to 95% RH for 2000 hours at 60°C, no voltage, The capacitors shall meet The requirement as Endurance.														
Surge Test	After subjecting to 1000 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.														
	<table border="1" style="width: 100%;"> <tr> <td>Capacitance Change</td> <td>Within ±20% of the initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 150% of the specified value</td> </tr> <tr> <td>ESR</td> <td>Not more than 150% of the specified value</td> </tr> <tr> <td>Leakage Current</td> <td>Not more than the specified value</td> </tr> </table>	Capacitance Change	Within ±20% of the initial value	Dissipation Factor	Not more than 150% of the specified value	ESR	Not more than 150% of the specified value	Leakage Current	Not more than the specified value						
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	Dissipation Factor	Not more than 150% of the specified value													
	ESR	Not more than 150% of the specified value													
Leakage Current	Not more than the specified value														

**◆ CASE SIZE TABLE**



φD	5	6.3	8	10
F	2.0	2.5	3.5	5.0
φd	0.5		0.6	
α	L+1.0 max			

## ◆ STANDARD RATINGS

V.DC (SV)	Cap	Size	ESR	Ripple Current	Leakage Current
	( $\mu$ F)	$\Phi$ D $\times$ L(mm)	( $m\Omega/20^\circ\text{C}, 100\text{kHz}$ )	( $\text{mArms}/105^\circ\text{C}, 100\text{kHz}$ )	( $\mu\text{A}/\text{max}$ )
2.5V (2.9)	390	6.3 $\times$ 11	15	3160	500
	560	6.3 $\times$ 9	10	4000	500
	560	8 $\times$ 9	7	6100	500
	820	6.3 $\times$ 9	7	5000	500
	820	8 $\times$ 9	7	6100	500
	1200	8 $\times$ 11	8	6100	600
	1200	10 $\times$ 12	8	6100	600
	1500	10 $\times$ 12	8	6100	750
4.0V (4.6)	560	6.3 $\times$ 9	10	4710	500
	560	8 $\times$ 9	10	6100	500
	560	8 $\times$ 11	10	6100	500
	680	8 $\times$ 9	7	6100	544
	820	8 $\times$ 11	7	6100	656
	1000	6.3 $\times$ 11	15	6100	800
	1200	10 $\times$ 12	8	6640	960
	6.3V (7.2)	47	6.3 $\times$ 6	30	1100
82		6.3 $\times$ 6	30	1100	500
100		5 $\times$ 7	35	1100	500
100		6.3 $\times$ 6	40	1100	500
150		4 $\times$ 7	50	1100	500
150		5 $\times$ 7	50	1100	500
220		5 $\times$ 8	25	3500	500
220		6.3 $\times$ 6	25	3160	500
220		6.3 $\times$ 9	15	3160	500
270		5 $\times$ 8	25	3700	500
270		8 $\times$ 9	10	3220	500
330		5 $\times$ 9	30	3220	500
330		5 $\times$ 11	30	3220	500
330		6.3 $\times$ 6	25	3160	500
390		5 $\times$ 9	25	3220	500
390		8 $\times$ 9	10	3700	500
470		6.3 $\times$ 9	15	3220	592
470		8 $\times$ 9	8	5580	592
560		6.3 $\times$ 9	8	5080	706
560		8 $\times$ 9	8	6100	706
680		6.3 $\times$ 9	8	5080	857
680		6.3 $\times$ 11	15	5080	857
680		8 $\times$ 9	9	5860	857
680		8 $\times$ 11	9	5860	857
820		6.3 $\times$ 11	9	5030	1033
820		8 $\times$ 9	9	5860	1033
820		8 $\times$ 11	8	5860	1033
820		10 $\times$ 12	7	6640	1033
1000		8 $\times$ 9	10	5580	1260
1000		8 $\times$ 11	10	5580	1260
1000	10 $\times$ 10	10	6100	1260	

## STANDARD RATINGS

V.DC (SV)	Cap	Size	ESR	Ripple Current	Leakage Current
	( $\mu$ F)	$\Phi$ D $\times$ L(mm)	( $m\Omega$ /20°C,100kHz)	(mA <sub>rms</sub> /105°C,100kHz)	( $\mu$ A/max)
6.3V (7.2)	1000	10 $\times$ 12	7	6100	1260
	1200	8 $\times$ 11	8	4700	1512
	1500	10 $\times$ 10	10	5560	1690
	1500	10 $\times$ 12	10	5560	1890
	2000	10 $\times$ 12	10	5560	2520
	2200	10*12	10	4700	2772
6.8V (7.8)	220	5 $\times$ 8	25	3500	600
	270	5 $\times$ 8	25	3700	600
	330	5 $\times$ 9	30	3220	600
	330	6.3 $\times$ 7	15	3160	600
	470	6.3 $\times$ 8	12	3220	592
7V (8.0)	560	6.3 $\times$ 8	12	4340	706
	680	6.3 $\times$ 9	10	5060	657
	820	6.3 $\times$ 9	8	5030	1033
	220	5 $\times$ 8	25	3500	500
	270	5 $\times$ 8	25	3700	500
	330	5 $\times$ 9	30	3220	500
	330	6.3 $\times$ 7	15	3160	500
	470	6.3 $\times$ 8	12	3220	592
	560	6.3 $\times$ 8	12	4340	706
	680	6.3 $\times$ 10	10	5080	857
	820	6.3 $\times$ 10	8	5030	1033
10V (11.5)	47	6.3 $\times$ 9	20	2900	500
	47	6.3 $\times$ 11	20	2900	500
	68	6.3 $\times$ 9	20	2900	500
	100	5 $\times$ 8	30	2620	500
	100	5 $\times$ 11	25	2620	500
	100	6.3 $\times$ 9	25	2820	500
	220	5 $\times$ 11	25	2820	500
	220	6.3 $\times$ 6	25	2700	500
	220	6.3 $\times$ 11	12	3200	500
	220	8 $\times$ 9	12	3200	500
	270	6.3 $\times$ 9	20	4420	540
	330	6.3 $\times$ 9	20	2820	660
	330	6.3 $\times$ 11	15	2820	660
	330	8 $\times$ 9	11	5000	660
	330	8 $\times$ 11	11	5060	660
	390	8 $\times$ 11	9	5080	780
	470	6.3 $\times$ 11	15	3160	940
	470	8 $\times$ 9	11	3900	940

### STANDARD RATINGS

V.DC (SV)	Cap	Size	ESR	Ripple Current	Leakage Current
	( $\mu$ F)	$\Phi$ D×L(mm)	( $m\Omega$ /20°C,100kHz)	(mArms/105°C,100kHz)	( $\mu$ A/max)
10V (11.5)	470	8×11	11	3900	940
	470	10×12	10	6100	940
	560	6.3×11	15	3160	1120
	560	8×9	10	5600	1120
	560	8×11	10	6100	1120
	560	10×10	10	5600	1120
	560	10×12	10	6100	1120
	680	6.3×11	15	3900	1360
	680	8×11	12	3900	1360
	680	10×10	12	6100	1360
	680	10×12	10	6100	1360
	820	8×11	12	3900	1640
	1000	8×11	12	3900	2000
	1000	10×12	10	6100	2000
	1200	8×11	12	3900	2400
	1200	10×12	10	6100	2400
	1500	10×12	10	6100	3000
	16V (18.4)	10	6.3×6	30	1810
47		5×8	30	1810	500
47		6.3×6	30	1810	500
47		6.3×9	25	2620	500
82		5×8	30	1810	500
100		5×11	25	2490	500
100		6.3×6	24	2490	500
100		6.3×9	24	2820	500
100		6.3×11	24	2820	500
120		6.3×9	24	2820	500
150		6.3×6	25	2820	500
150		6.3×9	25	2820	500
180		6.3×9	16	2820	576
180		8×9	16	2820	576
220		6.3×9	20	2820	704
220		6.3×11	20	2820	704
220		8×9	14	3300	704
220		8×11	15	3300	704
270		6.3×11	20	3160	864
270		8×9	11	5080	864
270		8×11	11	5080	864
270		10×10	11	5080	864
330		6.3×11	20	2820	1056
330		8×9	13	4700	1056
330		8×11	11	4700	1056
330		10×10	16	4720	1056
330		10×12	16	4720	1056
470		8×9	16	3300	1504
470	8×11	11	5080	1504	

## STANDARD RATINGS

V.DC (SV)	Cap	Size	ESR	Ripple Current	Leakage Current
	( $\mu$ F)	$\Phi$ D $\times$ L(mm)	(m $\Omega$ /20 $^{\circ}$ C,100kHz)	(mArms/105 $^{\circ}$ C,100kHz)	( $\mu$ A/max)
16V (18.4)	470	10 $\times$ 10	10	6100	1504
	470	10 $\times$ 12	10	6100	1504
	560	10 $\times$ 10	10	6100	1792
	560	10 $\times$ 12	10	6100	1792
	680	10 $\times$ 12	10	6100	2176
	820	10 $\times$ 12	10	6100	2624
	1000	10 $\times$ 12	10	6100	3200
	1200	10 $\times$ 12	10	6100	3840
20V (23)	33	6.3 $\times$ 7	40	2000	500
	100	8 $\times$ 11	20	2750	500
	120	6.3 $\times$ 11	24	2000	500
	150	10 $\times$ 12	25	2820	600
	180	8 $\times$ 11	24	2750	720
	180	10 $\times$ 12	20	2820	720
	360	8 $\times$ 11	30	2750	1440
25V (28.7)	22	8 $\times$ 9	32	1300	500
	33	8 $\times$ 9	30	2050	500
	47	8 $\times$ 9	30	2100	500
	56	8 $\times$ 9	30	2150	500
	68	8 $\times$ 9	30	2150	500
	100	6.3 $\times$ 11	25	2150	500
	100	8 $\times$ 9	25	2150	500
	100	8 $\times$ 11	20	2750	500
	100	10 $\times$ 12	20	2750	500
	120	8 $\times$ 9	30	2750	600
	120	8 $\times$ 11	24	2750	600
	150	8 $\times$ 11	20	2750	900
	180	8 $\times$ 11	20	2750	1100
	220	8 $\times$ 11	20	2750	1100
	220	10 $\times$ 12	20	2750	1100
	270	8 $\times$ 11	20	2750	1350
	330	8 $\times$ 12	20	2700	1650
	330	10 $\times$ 12	20	2700	1650
360	8 $\times$ 12	40	2220	1800	
470	10 $\times$ 12	20	2700	2350	