

## PW series

### Features

- ◆ Low height
- ◆ Low ESR at high frequency range.



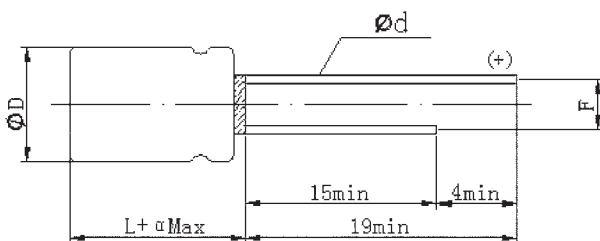
### Specifications

Item	Performance Characteristics	
Operating Temp. Range	-55°C~+105°C	
Rated Voltage Range	2.5~25V DC	
Capacitance Range	39 to 2500 μF	
Capacitance Tolerance	±20% ( 120Hz , +20°C )	
Leakage Current ( +20°C , max )	≤0.2CV ( μA, after 2 minutes )	
Dissipation Factor (tan δ , at 20°C , 120Hz)	Not to exceed the value specified	
ESR ( 100K~300KHz )	Not to exceed the value specified	
Endurance 105°C , 2000h , at rated voltage	Capacitance Change	Within ±20% of the value before test
	Leakage current	Not to exceed the value specified
	ESR	Not to exceed 150% of the value specified
	Dissipation Factor	Not to exceed 150% of the value specified
Moisture Resistance Stored at 60°C , RH90~95% , 1000h	Capacitance Change	Within ±20% of the value before test
	Leakage Current	Not to exceed the value specified
	ESR	Not to exceed 150% of the value specified
	Dissipation Factor	Not to exceed 150% of the value specified

### Frequency Coefficient for Ripple Current

Frequency	120Hz ≤ freq. < 1KHz	1KHz ≤ freq. < 10KHz	10KHz ≤ freq. < 100KHz	100KHz ≤ freq. < 300KHz
Coefficient	0.05	0.3	0.7	1

### Diagram of Dimensions:(unit:mm)



φD × L	φD + 0.5max.	α	F ± 0.5	φd ± 0.05
8 × 7	8.0	1.0	3.5	0.6
10 × 7	10.0	1.5	5.0	0.6
10 × 10	10.0	1.5	5.0	0.6

## Dimensions & Characteristics

φ D×L(mm)

W.V. (V)	Capacitance (μF)	L.C. (μA,2min)	tg δ (120Hz,20°C)	ESR (mΩ,100KHZ)	Maximum Permissible Ripple Current(mA,r.m.s)	Size φ D×L(mm)
2.5	820	410	0.08	20	3700	8×7
	1000	500	0.08	20	3700	8×7
	1200	600	0.08	15	4200	10×7
	1500	750	0.10	15	4200	10×7
	1800	900	0.10	15	4200	10×7
				12	4500	10×10
	2000	1000	0.10	15	4200	10×7
12				4500	10×10	
2500	1250	0.10	12	4500	10×10	
4	560	448	0.08	20	3700	8×7
	680	544	0.08	20	3700	8×7
	820	656	0.08	20	3700	8×7
				15	4200	10×7
	1000	800	0.10	15	4200	10×7
				12	4500	10×10
	1200	960	0.10	15	4200	10×7
				12	4500	10×10
1500	1200	0.10	15	4200	10×7	
			12	4500	10×10	
1800	1440	0.10	12	4500	10×10	
6.3	470	592	0.08	20	3700	8×7
	560	705.6	0.08	20	3700	8×7
	680	856.8	0.08	20	3700	8×7
	820	1033.2	0.10	20	3700	8×7
				15	4200	10×7
	1000	1260	0.10	15	4200	10×7
				12	4500	10×10
	1200	1512	0.10	15	4200	10×7
12				4500	10×10	
1500	1890	0.10	12	4500	10×10	
10	330	660	0.08	20	3700	8×7
	390	780	0.08	20	3700	8×7
	470	940	0.08	20	3700	8×7
				15	4200	10×7
	560	1120	0.08	15	4200	10×7
				12	4500	10×10
	680	1360	0.10	15	4200	10×7
				12	4500	10×10
820	1640	0.10	15	4200	10×7	
			12	4500	10×10	
1000	2000	0.10	12	4500	10×10	
16	180	576	0.08	20	3300	8×7
	220	704	0.08	20	3300	8×7
	270	864	0.08	20	3300	8×7
				20	3700	10×7
	330	1056	0.10	20	3700	10×7
				15	4200	10×10
	390	1248	0.10	20	3700	10×7
				20	4200	10×10
470	1504	0.10	20	3700	10×7	
			15	4200	10×10	
560	1792	0.10	15	4200	10×10	

Conductive Polymer

W.V. (V)	Capacitance ( $\mu$ F)	L.C. ( $\mu$ A,2min)	tg $\delta$ (120Hz,20°C)	ESR (m $\Omega$ ,100KHZ)	Maximum Permissible Ripple Current(mA,r.m.s)	Size $\Phi$ D $\times$ L(mm)
20	56	224	0.08	25	3000	8 $\times$ 7
	68	272	0.08	25	3000	8 $\times$ 7
	82	328	0.08	25	3000	8 $\times$ 7
				25	3400	10 $\times$ 7
	100	400	0.08	25	3000	8 $\times$ 7
				25	3400	10 $\times$ 7
				20	3800	10 $\times$ 10
	150	600	0.08	25	3000	8 $\times$ 7
				25	3400	10 $\times$ 7
				20	3800	10 $\times$ 10
	180	720	0.08	25	3000	8 $\times$ 7
				25	3400	10 $\times$ 7
20				3800	10 $\times$ 10	
220	880	0.10	25	3400	10 $\times$ 7	
			20	3800	10 $\times$ 10	
270	1080	0.10	25	3400	10 $\times$ 7	
			20	3800	10 $\times$ 10	
330	1320	0.10	20	3800	10 $\times$ 10	
25	39	195	0.08	25	3000	8 $\times$ 7
	47	235	0.08	25	3000	8 $\times$ 7
	56	280	0.08	25	3000	8 $\times$ 7
	68	340	0.08	25	3000	8 $\times$ 7
				25	3400	10 $\times$ 7
	82	410	0.08	25	3000	8 $\times$ 7
				25	3400	10 $\times$ 7
				20	3800	10 $\times$ 10
	100	500	0.10	25	3400	10 $\times$ 7
				20	3800	10 $\times$ 10
	120	600	0.10	25	3400	10 $\times$ 7
				20	3800	10 $\times$ 10
150	750	0.10	25	3400	10 $\times$ 7	
			20	3800	10 $\times$ 10	
180	900	0.10	20	3800	10 $\times$ 10	

Ripple Current ( mA, rms ) at 105°C, 100KHz

## Size List

$\Phi$  D $\times$ L(mm)

WV (SV) Cap( $\mu$ F)	2.5(2.8)	4(4.6)	6.3(7.2)	10(11.5)	16(18.4)	20(23)	25(27.5)
39							8 $\times$ 7
47							8 $\times$ 7
56						8 $\times$ 7	8 $\times$ 7/10 $\times$ 7
68						8 $\times$ 7	8 $\times$ 7/10 $\times$ 7
82						8 $\times$ 7/10 $\times$ 7	8 $\times$ 7/10 $\times$ 7/10 $\times$ 10
100						8 $\times$ 7/10 $\times$ 7/10 $\times$ 10	10 $\times$ 7/10 $\times$ 10
150						8 $\times$ 7/10 $\times$ 7/10 $\times$ 10	10 $\times$ 7/10 $\times$ 10
180					8 $\times$ 7	8 $\times$ 7/10 $\times$ 7/10 $\times$ 10	10 $\times$ 10
220					8 $\times$ 7	10 $\times$ 7/10 $\times$ 10	
270					8 $\times$ 7/10 $\times$ 7	10 $\times$ 7/10 $\times$ 10	
330				8 $\times$ 7	10 $\times$ 7/10 $\times$ 10	10 $\times$ 10	
390				8 $\times$ 7	10 $\times$ 7/10 $\times$ 10		
470			8 $\times$ 7	8 $\times$ 7/10 $\times$ 7	10 $\times$ 7/10 $\times$ 10		
560		8 $\times$ 7	8 $\times$ 7	10 $\times$ 7/10 $\times$ 10	10 $\times$ 10		
680		8 $\times$ 7	8 $\times$ 7	10 $\times$ 7/10 $\times$ 10			
820	8 $\times$ 7	8 $\times$ 7/10 $\times$ 7	8 $\times$ 7/10 $\times$ 7	10 $\times$ 7/10 $\times$ 10			
1000	8 $\times$ 7	10 $\times$ 7	10 $\times$ 7/10 $\times$ 10	10 $\times$ 10			
1200	10 $\times$ 7	10 $\times$ 7/10 $\times$ 10	10 $\times$ 7/10 $\times$ 10				
1500	10 $\times$ 7	10 $\times$ 7/10 $\times$ 10	10 $\times$ 10				
1800	10 $\times$ 7/10 $\times$ 10	10 $\times$ 10					
2000	10 $\times$ 7/10 $\times$ 10						
2500	10 $\times$ 10						

Ripple Current ( mA, rms ) at 105°C 100KHz