

# PV series

- Super low ESR, High ripple current capability
- Rated voltage :2.5~63V.
- Endurance:15,000hours at 105°C
- Applications:motherboards, servers,VGA ,etc.
- ROHS compliant
- Halogen Free compliant

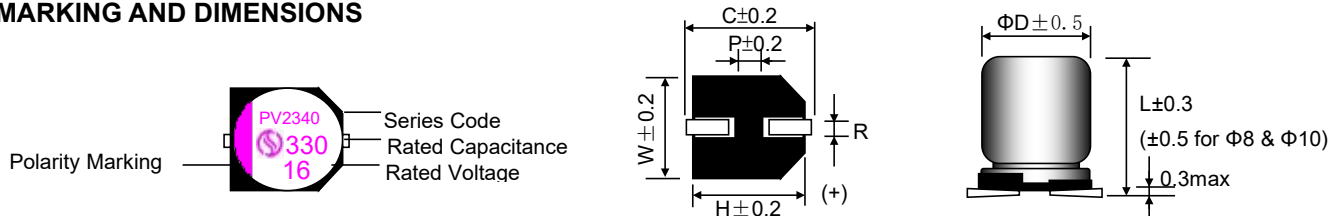


## SPECIFICATIONS

Items	Conditions	Characteristics	
Category Temperature Range	—	-55 to +105°C	
Rated Voltage Range	—	2.5~63V	
Capacitance Tolerance	at 20°C,120HZ	±20%(M)	
Surge Voltage	at 105°C	Rated voltage ×1.15V	
Leakage Current	at 20°C after 2 minutes	I≤0.2CV or 300(μA) Whichever is greater measured,after 2minutes application of rated working voltage at +20°C. Please see the attached characteristics list	
Dissipation Factor ( tan δ)	at 20°C,120Hz	Please see the attached characteristics list	
Low Temperature Characteristics (Max. Impedance Ratio)	at -55°C,100kHz	Z(-55°C)/Z(+20°C)	≤ 1.25
	at -25°C,100kHz	Z(-25°C)/Z(+20°C)	≤ 1.15
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 15,000 hours at 105°C.	Appearance	No significant damage.
		Capacitance change	≤±20% of the initial value.
		DF(tanδ)	≤150% of the initial specified value.
		ESR	≤150% of the initial specified value.
		Leakage current	≤The initial specified value.
Damp Heag (Steady State)	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjecting them to subjecting them to store at 60°C, 90 to 95% RH for 1,000 hours ,without DC applied.	Appearance	No significant damage.
		Capacitance change	≤±20% of the initial value.
		DF(tanδ)	≤150% of the initial specified value.
		ESR	≤150% of the initial specified value.
		Leakage current	≤The initial specified value.
Surge Voltage	The capacitors shall be subjected to 1,000 cycles each consisting of charge with the surge voltages specified at 105°C for 30 seconds through a protective resistor (R=1kΩ) and discharge for 5 minutes 30seconds	Appearance	No significant damage.
		Capacitance change	≤±20% of the initial value.
		DF(tanδ)	≤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 following voltage treatment.  
Voltage treatment :DC rated voltage are applied to the capacitors for 120 minutes at 105°C.

## MARKING AND DIMENSIONS



(Unit:mm)

Size Code	ΦD	L	W	H	C	R	P
5×5.8	5.0	5.8	5.3	5.3	6.0	0.5~0.8	1.4
6.3×5.8	6.3	5.8	6.6	6.6	7.3	0.6~0.9	2.1
6.3×9.5	6.3	9.5	6.6	6.6	7.3	0.6~0.9	2.1
8×6.7	8.0	6.7	8.3	8.3	9.0	0.8~1.1	3.2
8×9.5	8.0	9.5	8.3	8.3	9.0	0.8~1.1	3.2
8×12	8.0	12.0	8.3	8.3	9.0	0.8~1.1	3.2
10×10.5	10.0	10.5	10.3	10.3	11.0	0.8~1.1	4.6
10×12.5	10.0	12.5	10.3	10.3	11.0	0.8~1.1	4.6

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**STANDARD RATINGS**

Rated Voltage (S.V.)	Cap (μF)	Size DxL	Leakage current (μA) max.	ESR (mΩ) max. 100k to 300kHz / 20°C	Rated Ripple Current (mA rms) 100kHz / 105°C	D.F. (tanδ) max. 120Hz / 20°C
2.5 (2.9)	220	5x5.8	300	40	1620	0.12
	330	6.3x5.8	300	20	2690	0.12
	820	6.3x9.5	410	18	3200	0.12
	820	8x9.5	410	18	4520	0.12
	1500	8x9.5	750	18	4520	0.12
	1800	8x12	900	12	5200	0.12
	2700	10x12.5	1350	12	5500	0.12
4 (4.6)	68	5x5.8	300	40	1500	0.12
	150	6.3x5.8	300	24	2200	0.12
	680	6.3x9.5	544	16	3200	0.12
	680	8x6.7	544	20	3400	0.12
	1000	8x9.5	800	16	4500	0.12
	1500	8x12	1200	14	5100	0.12
	1800	10x12.5	1440	12	5500	0.12
	2200	10x12.5	2000	12	5500	0.12
6.3 (7.2)	100	5x5.8	300	40	1500	0.12
	220	5x7	300	20	1600	0.12
	220	6.3x5.8	300	20	2400	0.12
	560	6.3x9.5	705	20	3200	0.12
	560	8x6.7	705	20	3300	0.12
	820	8x9.5	1033	15	4450	0.12
	1000	8x9.5	1260	15	4520	0.12
	1200	8x12	1512	12	5020	0.12
	1500	10x10.5	1890	15	5020	0.12
	1800	10x12.5	2268	12	5400	0.12
	2200	10x12.5	2772	12	5500	0.12
10 (11.5)	68	5x5.8	300	40	1500	0.12
	120	6.3x5.8	300	25	2420	0.12
	150	8x6.7	300	22	2450	0.12
	330	6.3x9.5	660	20	3200	0.12
	560	8x9.5	1120	16	4450	0.12
	680	8x9.5	1360	16	4450	0.12
	820	8x12	1640	14	4850	0.12
	1000	10x10.5	2000	15	5020	0.12
	1200	10x10.5	2400	15	5200	0.12
	1500	10x12.5	3000	14	5400	0.12
	16 (18.4)	100	6.3x5.8	320	24	2400
180		6.3x9.5	576	15	3200	0.12
220		6.3x9.5	704	15	3200	0.12
270		6.3x9.5	864	15	3200	0.12
270		8x6.7	864	20	3400	0.12
270		8x9.5	864	20	4400	0.12
470		8x9.5	1504	25	4400	0.12
560		8x12	1792	16	4820	0.12
680		10x10.5	2176	18	5200	0.12
1000		10x12.5	3200	16	5400	0.12

PV

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Rated Voltage (S.V.)	Cap (μF)	Size DxL	Leakage current (μA) max.	ESR (mΩ) max. 100k to 300kHz / 20°C	Rated Ripple Current (mA rms) 100kHz / 105°C	D.F. (tanδ) max. 120Hz / 20°C
20 (23.0)	68	6.3x5.8	300	38	1450	0.12
	180	6.3x9.5	720	30	1450	0.12
	330	8x9.5	1320	30	1890	0.12
	470	8x12	1880	28	3320	0.12
	560	10x10.5	2240	28	3320	0.12
	680	10x12.5	2720	28	4220	0.12
25 (28.8)	47	6.3x5.8	300	40	1200	0.12
	100	6.3x9.5	500	30	2000	0.12
	100	8x6.7	500	40	2000	0.12
	150	8x9.5	750	35	3000	0.12
	220	8x12	1100	32	3500	0.12
	330	10x10.5	1650	35	3800	0.12
	470	10x12.5	2350	32	4000	0.12
35 (40.3)	22	6.3x5.8	300	80	1450	0.12
	56	6.3x9.5	392	50	2300	0.12
	68	6.3x9.5	476	50	2300	0.12
	68	8x6.7	476	60	2500	0.12
	100	8x12	700	28	2750	0.12
	220	10x12.5	1540	28	3200	0.12
50 (57.5)	12	6.3x5.8	300	100	660	0.12
	33	6.3x9.5	330	50	900	0.12
	47	8x9.5	470	45	1850	0.12
	100	10x12.5	1000	28	2560	0.12
	180	10x12.5	1800	28	2560	0.12
63 (72.5)	22	6.3x9.5	300	50	1800	0.12
	33	6.3x9.5	416	50	1800	0.12
	47	8x12	592	36	2200	0.12
	56	10x10.5	705	32	2350	0.12
	100	10x12.5	1260	28	2550	0.12
	150	10x12.5	1890	28	2550	0.12

**FREQUENCY COEFFICIENT FOR RIPPLE CURRENT**

Frequency	120Hz ≤ f < 1kHz	1kHz ≤ f < 10kHz	10kHz ≤ f < 100kHz	100kHz ≤ f < 500kHz
Coefficient	0.05	0.3	0.7	1.0

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