

## PR series SMD type & Long Life to 5,000Hours

### Features

- ◆ SMD type .
- ◆ Long Life to 5,000Hours.

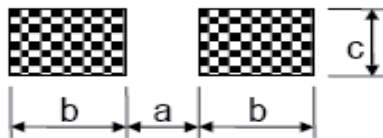
### Specifications

Items	Performance Characteristics	
Operating Temperature Range	-55°C~+105°C	
Rated Voltage Range	6.3~50V DC	
Capacitance Range	10 to 1500μF	
Capacitance Tolerance	±20% (120Hz, +20°C)	
Leakage Current (+20°C, max)	Not to exceed the values shown in Standard Ratings (Rated voltage applied, after 2 minutes at 20°C)	
ESR (at 100KHz, 20°C)	Not to exceed the values shown in Standard Ratings	
ESR (100K~300KHz)	Not to exceed the values shown in Standard Ratings	
Endurance 105°C, 5000h, 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 Cuie

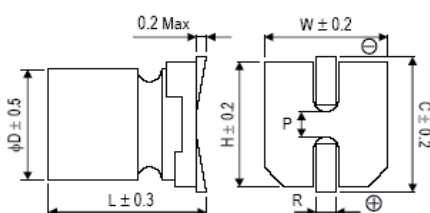
Frequency	120Hz≤freq.<1KHz	1KHz≤freq.<10KHz	10KHz≤freq.<100KHz	100KHz≤freq.<300KHz
Coefficient	0.05	0.3	0.7	1

### Recommended land pattern:(unit:mm)



φD×L	a	b	c
6.3×5.8	2.1	3.5	1.6
6.3×7.7	2.1	3.5	1.6
8×7.7	2.8	4.2	1.9
8×8.7	2.8	4.2	1.9
8×11.7	2.8	4.2	1.9
10×8.7	4.3	4.4	1.9
10×10.5	4.3	4.4	1.9
10×12.4	4.3	4.4	1.9

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



φD×L	W	H	C	R	P
6.3×5.8	6.5	6.5	7.2	0.5 to 0.8	2.2
6.3×7.7	6.5	6.5	7.2	0.5 to 0.8	2.2
8×7.7	8.3	8.3	9.0	0.7 to 1.1	3.1
8×8.7	8.3	8.3	9.0	0.7 to 1.1	3.1
8×11.7	8.3	8.3	9.0	0.7 to 1.1	3.1
10×8.7	10.3	10.3	11.0	0.7 to 1.1	4.5
10×10.5	10.3	10.3	11.0	0.7 to 1.1	4.5
10×12.4	10.3	10.3	11.0	0.7 to 1.1	4.5

## Dimensions & Characteristics

φDxL(mm)

W.V. (V)	Capacitance (μF)	Size φDxL(mm)	L.C. (μA,2min)	tgδ (120Hz,20°C)	ESR (mΩ,100KHZ)	Maximum Permissible Ripple Current(mA,r.m.s)
6.3	100	6.3×5.8	300	0.08	32	2300
	220	6.3×5.8	300	0.08	32	2300
		6.3×5.8	300	0.08	20	2800
	270	6.3×7.7	340.2	0.08	22	3000
	470	8×7.7	592.2	0.08	22	3700
	820	8×11.7	1033.2	0.08	12	5000
	1000	10×10.5	1260	0.08	15	4700
1500	10×12.4	1890	0.08	12	5300	
10	56	6.3×5.8	300	0.08	32	2300
	120	6.3×7.7	300	0.08	22	2900
	150	6.3×7.7	300	0.08	22	2900
	180	6.3×7.7	360	0.08	22	2900
	270	8×7.7	540	0.08	22	3200
	330	10×8.7	660	0.08	22	3700
	470	8×11.7	940	0.08	12	4500
	560	10×10.5	1120	0.08	15	4200
	820	10×12.4	1640	0.08	12	4800
	1000	10×12.4	2000	0.08	12	4800
16	47	6.3×5.8	400	0.10	48	1700
	82	6.3×7.7	400	0.10	28	2400
	100	6.3×7.7	400	0.10	28	2400
	120	6.3×7.7	400	0.12	28	2400
		8×7.7	400	0.12	28	3000
	150	8×8.7	480	0.12	26	3100
		10×8.7	480	0.12	33	3100
	180	8×11.7	576	0.12	18	4200
		10×8.7	576	0.12	33	3100
	220	8×11.7	704	0.12	18	4200
	270	10×10.5	864	0.12	23	3800
	330	10×10.5	1056	0.12	23	3800
	390	10×12.4	1248	0.12	18	4500
	560	10×12.4	1792	0.12	18	4500
680	10×12.4	2176	0.12	18	4500	
20	22	6.3×5.8	600	0.10	48	1700
	33	6.3×5.8	600	0.10	48	1700
	47	6.3×7.7	600	0.10	33	2300
	56	6.3×7.7	600	0.10	33	2300
	68	6.3×7.7	600	0.10	33	2300
	82	8×7.7	600	0.12	33	2900
	120	8×7.7	600	0.12	33	2900
	150	8×11.7	600	0.12	23	4000
	180	8×11.7	720	0.12	23	4000
		10×10.5	720	0.12	25	3650
	220	10×10.5	880	0.12	25	3650
	330	10×12.4	1320	0.12	23	4200

## Dimensions & Characteristics

φDxL(mm)

W.V. (V)	Capacitance (μF)	Size φDxL(mm)	L.C. (μA,2min)	tgδ (120Hz,20°C)	ESR (mΩ,100KHZ)	Maximum Permissible Ripple Current(mA,r.m.s)
25	10	6.3×5.8	600	0.10	58	1600
	22	6.3×5.8	600	0.10	58	1600
	39	6.3×7.7	600	0.10	33	2300
	47	6.3×7.7	600	0.10	33	2300
			8×11.7	600	0.12	23
	56	8×7.7	600	0.12	33	2900
	68	8×7.7	600	0.12	33	2900
		8×11.7	600	0.12	23	4000
	82	8×8.7	600	0.12	27	3200
		8×11.7	600	0.12	23	4000
		10×8.7	600	0.12	33	2900
	100	6.3×7.7	600	0.12	40	2000
		8×8.7	600	0.12	27	3200
	120	8×11.7	600	0.12	23	4000
			10×10.5	600	0.12	25
150	10×12.4	750	0.12	23	4200	
180	10×12.4	900	0.12	23	4200	
220	8×11.7	1100	0.12	23	4000	
	10×12.4	1100	0.12	23	4200	
35	10	6.3×5.8	600	0.12	75	980
	18	6.3×7.7	600	0.12	60	1400
	22	8×11.7	600	0.12	35	2300
	27	6.3×7.7	600	0.12	60	1400
	33	8×11.7	600	0.12	35	2300
	39	8×8.7	600	0.12	40	1800
	56	8×11.7	600	0.12	35	2300
	68	10×10.5	600	0.12	32	2500
	100	10×10.5	700	0.12	32	2500
		10×12.4	700	0.12	30	3100
	150	10×10.5	700	0.12	32	2500
		10×12.4	700	0.12	30	3100
50	10	8×7.7	100	0.12	75	1400
	12	6.3×7.7	120	0.12	75	1400
	22	8×8.7	220	0.12	50	1800
			220	0.12	40	2400
			10×8.7	220	0.12	55
	27	8×11.7	270	0.12	40	2400
	33	10×10.5	330	0.12	42	2200
		10×12.4	330	0.12	30	3000
	47	10×12.4	470	0.12	30	3000
	56	10×12.4	560	0.12	30	3000
68	10×12.4	680	0.12	30	3000	
100	10×12.4	1000	0.12	26	3650	

Ripple Current(mA,rms)at 105°C,100KHz