

PS Chip Type Series

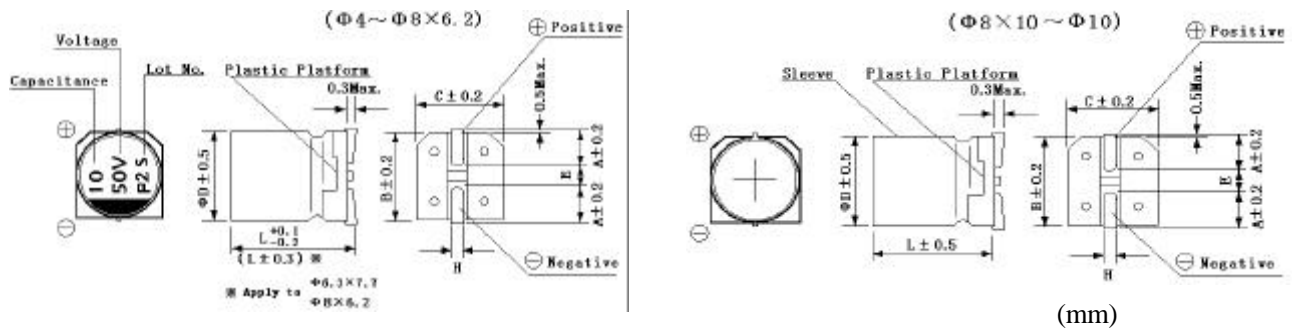
- Case diameter: Φ \times mm; Φ \times 0mm
- Reflow soldering is available
- Available for high density surface mounting

Specifications

Item	Characteristics																																																					
Operating Temperature Range	-40°C ~ +85°C																																																					
Rated Voltage Range	4V ~ 100V																																																					
Nominal Capacitance Range	0.1 μ F ~ 1500 μ F																																																					
Capacitance Tolerance	M (\pm 20%) (20°C, 120Hz)																																																					
Leakage Current	$I \leq 0.01C_R U_R$ or 3 (μ A), whichever is greater. C _R : Nominal capacitance(μ F) U _R : Rated voltage(V) (20°C, after 2 minutes)																																																					
Dissipation Factor (Max)	Refer to "Nominal capacitance, rated voltage, rated ripple current, tan δ and case size table" (20°C, 120Hz)																																																					
Low Temperature Stability (Impedance Ratio)	<table border="1"> <thead> <tr> <th colspan="2">U_R(V)</th> <th>4</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Z(-25°C)/Z(+20°C)</td> <td>< Φ8</td> <td>7</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>\geq Φ8</td> <td>7</td> <td>5</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td rowspan="2">Z(-40°C)/Z(+20°C)</td> <td>< Φ8</td> <td>15</td> <td>8</td> <td>8</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> <tr> <td>\geq Φ8</td> <td>15</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table> <p style="text-align: right;">(120Hz)</p>	U _R (V)		4	6.3	10	16	25	35	50	63	100	Z(-25°C)/Z(+20°C)	< Φ 8	7	4	3	2	2	2	2	2	2	\geq Φ 8	7	5	4	3	2	2	2	2	2	Z(-40°C)/Z(+20°C)	< Φ 8	15	8	8	4	4	3	3	3	3	\geq Φ 8	15	10	8	6	4	3	3	3	3
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Load Life	<p>After 2000 hours' application of rated voltage at 85°C, the capacitor shall meet the following requirement:</p> <table border="1"> <tbody> <tr> <td>Capacitance change</td> <td>Within \pm 20% of the initial value (4V: Within \pm 25% of the initial value).</td> </tr> <tr> <td>Dissipation factor</td> <td>Not more than 200% of the initial specified value.</td> </tr> <tr> <td>Leakage current</td> <td>Not more than the initial specified value.</td> </tr> </tbody> </table>	Capacitance change	Within \pm 20% of the initial value (4V: Within \pm 25% of the initial value).	Dissipation factor	Not more than 200% of the initial specified value.	Leakage current	Not more than the initial specified value.																																															
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Shelf Life	After storage for 1000 hours at +85°C, the capacitors shall meet the requirement of load life above.																																																					
Resistance to Soldering Heat	<p>The capacitors shall be kept on the hot plate maintained at 250°C for 30 seconds. After removing from the hot plate and restored at room temperature, they meet the following requirement:</p> <table border="1"> <tbody> <tr> <td>Capacitance Change</td> <td>Within \pm 10% of the initial value.</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than the initial specified value.</td> </tr> <tr> <td>Leakage Current</td> <td>Not more than the initial specified value.</td> </tr> </tbody> </table>	Capacitance Change	Within \pm 10% of the initial value.	Dissipation Factor	Not more than the initial specified value.	Leakage Current	Not more than the initial specified value.																																															
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Rated Ripple Current & Frequency Multipliers	<table border="1"> <tbody> <tr> <td>Frequency</td> <td>50Hz</td> <td>120Hz</td> <td>300Hz</td> <td>1kHz</td> <td>\geq10kHz</td> </tr> <tr> <td>Multiplier</td> <td>0.70</td> <td>1.00</td> <td>1.17</td> <td>1.36</td> <td>1.50</td> </tr> </tbody> </table>	Frequency	50Hz	120Hz	300Hz	1kHz	\geq 10kHz	Multiplier	0.70	1.00	1.17	1.36	1.50																																									
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■ Dimensions



	4×5.4	5×5.4	6.3×5.4	6.3×7.7	8×6.2	8×10	10×10
A	1.8	2.1	2.4	2.4	3.3	2.9	3.2
B	4.3	5.3	6.6	6.6	8.3	8.3	10.3
C	4.3	5.3	6.6	6.6	8.3	8.3	10.3
E	1.0	1.3	2.2	2.2	2.3	3.1	4.5
L	5.4	5.4	5.4	7.7	6.2	10	10
H	0.5 ~ 0.8					0.8 ~ 1.1	

■ Nominal capacitance, rated voltage, rated ripple current, tan δ and case size table

U _R (V) Item	4			6.3			10			16		
	D×L mm	tan δ	I~	D×L mm	tan δ	I~	D×L mm	tan δ	I~	D×L mm	tan δ	I~
10										4×5.4	0.16	23
22				4×5.4	0.26	28	4×5.4	0.30	30	4×5.4	0.26	30
							5×5.4	0.20	33	5×5.4	0.16	37
33	4×5.4	0.35	28	4×5.4	0.35	34	4×5.4	0.30	34	5×5.4	0.26	44
				5×5.4	0.26	37	5×5.4	0.20	41	6.3×5.4	0.16	49
47	4×5.4	0.35	33	4×5.4	0.35	40	5×5.4	0.30	47	5×5.4	0.26	52
				5×5.4	0.26	45	6.3×5.4	0.26	52	6.3×5.4	0.16	58
56	5×5.4	0.35	42	5×5.4	0.35	46	5×5.4	0.30	50	5×5.4	0.26	57
				6.3×5.4	0.26	52	6.3×5.4	0.26	57	6.3×5.4	0.20	63
100	5×5.4	0.35	56	5×5.4	0.35	47	5×5.4	0.30	54	6.3×5.4	0.26	86
				6.3×5.4	0.26	70	6.3×5.4	0.26	76	8×6.2	0.20	125
150	6.3×5.4	0.35	79	6.3×5.4	0.35	71	6.3×7.7	0.26	76	6.3×7.7	0.26	135
220	6.3×5.4	0.35	96	6.3×5.4	0.35	86	6.3×7.7	0.26	119	6.3×7.7	0.26	162
				8×6.2	0.35	103	8×6.2	0.26	121	8×10	0.20	215
330	6.3×5.4	0.50	98	6.3×7.7	0.35	125	8×10	0.26	240	8×10	0.20	270
	6.3×7.7	0.35	140	8×6.2	0.35	127				10×10	0.20	380
470	6.3×7.7	0.35	200	8×10	0.35	265	8×10	0.26	290	8×10	0.20	307
							10×10	0.26	327	10×10	0.20	330
680	8×10	0.35	284	8×10	0.35	318	10×10	0.26	393	10×10	0.20	396
1000	8×10	0.35	344	8×10	0.35	372	10×10	0.26	454			
				10×10	0.35	400						
1500	10×10	0.35	347	10×10	0.35	489						

Rated ripple current (mA rms)
(85°C, 120Hz)

Aluminum Electrolytic Capacitors

PS Chip Type Series

■ Nominal capacitance, rated voltage, rated ripple current, $\tan \delta$ and case size table

C _R (μ F) Item	25			35			50			63			100					
	D×L mm	$\tan \delta$	I~	D×L mm	$\tan \delta$	I~	D×L mm	$\tan \delta$	I~	D×L mm	$\tan \delta$	I~	D×L mm	$\tan \delta$	I~			
0.1							4×5.4	0.12	1.0	4×5.4	0.18	1.0						
0.22							4×5.4	0.12	2.0	4×5.4	0.18	2.3						
0.33							4×5.4	0.12	2.8	4×5.4	0.18	3.5						
0.47							4×5.4	0.12	4.0	4×5.4	0.18	5.0						
1.0							4×5.4	0.12	8.4	4×5.4	0.18	10						
2.2							4×5.4	0.12	13	4×5.4	0.18	15						
3.3							4×5.4	0.12	17	4×5.4	0.18	20	6.3×7.7	0.18	28			
													8×6.2	0.18	31			
4.7	4×5.4	0.14	16	4×5.4	0.12	18	4×5.4	0.14	18	4×5.4	0.18	23	6.3×7.7	0.18	35			
							5×5.4	0.12	20				8×10	0.18	51			
10	4×5.4	0.14	24	4×5.4	0.16	24	5×5.4	0.14	30	6.3×5.4	0.18	34	6.3×7.7	0.18	50			
	5×5.4	0.12	27	5×5.4	0.12	29	6.3×5.4	0.12	33				8×10	0.18	85			
22	5×5.4	0.20	38	5×5.4	0.16	39	6.3×5.4	0.14	43	6.3×7.7	0.18	70	8×10	0.18	90			
	6.3×5.4	0.14	42	6.3×5.4	0.12	46	8×6.2	0.12	56	8×10	0.18	78	10×10	0.18	120			
33	5×5.4	0.20	46	6.3×5.4	0.16	53	6.3×7.7	0.14	94									
	6.3×5.4	0.14	52	8×6.2	0.14	67	8×6.2	0.12	95	8×10	0.18	160	10×10	0.18	190			
							8×10	0.12	110									
47	6.3×5.4	0.20	60	6.3×5.4	0.16	69	6.3×7.7	0.14	105									
				6.3×7.7	0.16	70	8×10	0.12	132	8×10	0.18	170						
				8×6.2	0.14	76	10×10	0.12	146									
56	6.3×7.7	0.20	65	6.3×7.7	0.16	80	8×10	0.12	150	8×10	0.18	230						
100	6.3×7.7	0.20	143	6.3×7.7	0.16	132	8×10	0.12	181	10×10	0.18	280						
	8×6.2	0.16	145	8×10	0.14	175												
	8×10	0.16	180	10×10	0.14	210												
150	8×10	0.16	192	8×10	0.14	214	10×10	0.12	238									
220	8×10	0.16	232	8×10	0.14	246	10×10	0.12	289									
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Rated ripple current (mA rms) (85°C, 120Hz)