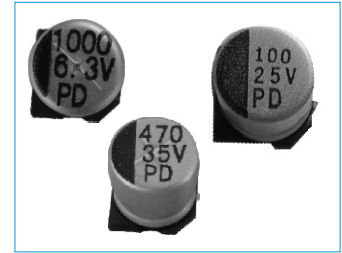


# Chip Type Aluminum Electrolytic Capacitors

## PD Chip Type Series

- Chip type, low impedance temperature range up to 105°C.
- Designed for surface mounting on high density PC board.
- Applicable to automatic insertion machine using carrier tape.
- Adapted to the RoHS directive (2002/95/EC).

PZ  $\Rightarrow$  PD  
Extremely Low Impedance



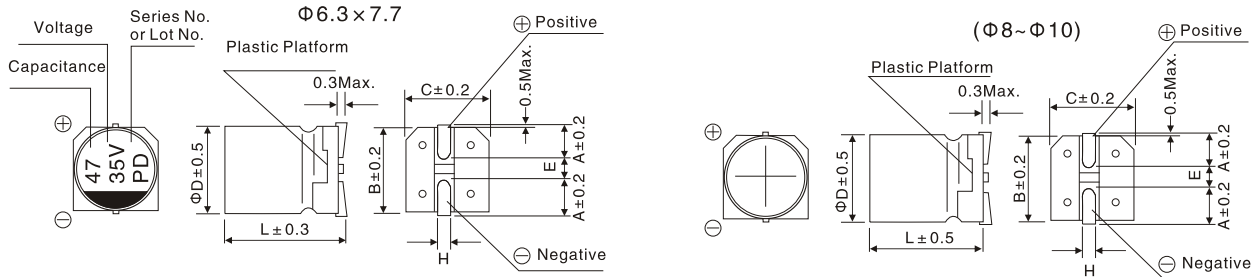
### Specifications

Item	Characteristics																		
Operating Temperature Range	-55°C~+105°C																		
Rated Voltage Range	6.3V ~ 35V																		
Nominal Capacitance Range	47 $\mu$ F ~ 1500 $\mu$ F																		
Capacitance Tolerance	M ( $\pm$ 20%) (20°C, 120Hz)																		
Leakage Current	$I \leq 0.01CV$ or $3(\mu A)$ , whichever is greater. C:Nominal capacitance ( $\mu$ F) V:Rated voltage(V) (20°C, after 2 minutes)																		
Dissipation Factor (Max)	<table border="1"> <thead> <tr> <th>WV</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> </tr> </thead> <tbody> <tr> <td>tan <math>\delta</math></td> <td>0.26</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> </tr> </tbody> </table> <p>(20°C, 120Hz)</p>	WV	6.3	10	16	25	35	tan $\delta$	0.26	0.20	0.16	0.14	0.12						
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Low Temperature Stability (Impedance Ratio)	<table border="1"> <thead> <tr> <th>WV</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> </tr> </thead> <tbody> <tr> <td>Z(-25°C)/Z(+20°C)</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z(-40°C)/Z(+20°C)</td> <td>4</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> </tr> </tbody> </table> <p>(120Hz)</p>	WV	6.3	10	16	25	35	Z(-25°C)/Z(+20°C)	2	2	2	2	2	Z(-40°C)/Z(+20°C)	4	4	4	3	3
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Load Life	<p>After 3000 hours' (<math>\Phi 6.3 \times 7.7</math>: 2000 hours') application of rated voltage at 105°C, the capacitors shall meet the following requirement:</p> <table border="1"> <tbody> <tr> <td>Capacitance change</td> <td>Within <math>\pm</math> 30% 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 $\pm$ 30% 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 +105°C, the capacitors shall meet the requirement of load life above.																		
Rated Ripple Current & Frequency Multipliers	<table border="1"> <thead> <tr> <th>Frequency</th> <th>50Hz</th> <th>120Hz</th> <th>300Hz</th> <th>1kHz</th> <th><math>\geq 10</math>kHz</th> </tr> </thead> <tbody> <tr> <td>Multiplier</td> <td>0.35</td> <td>0.50</td> <td>0.64</td> <td>0.83</td> <td>1.00</td> </tr> </tbody> </table>	Frequency	50Hz	120Hz	300Hz	1kHz	$\geq 10$ kHz	Multiplier	0.35	0.50	0.64	0.83	1.00						
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# Chip Type Aluminum Electrolytic Capacitors

## PD Chip Type Series

### ■ Dimensions



	(mm)		
	6.3×7.7	8×10	10×10
A	2.4	2.9	3.2
B	6.6	8.3	10.3
C	6.6	8.3	10.3
E	2.2	3.1	4.5
L	7.7	10	10
H	0.5~0.8	0.8~1.1	

### ■ Nominal capacitance, rated voltage, rated ripple current, impedance and case size table

WV Item μ F	6.3			10			16			25			35		
	D×L mm	Z	I~	D×L mm	Z	I~	D×L mm	Z	I~	D×L mm	Z	I~	D×L mm	Z	I~
47													6.3×7.7	0.26	300
100				6.3×7.7	0.26	300	6.3×7.7	0.26	300	6.3×7.7	0.26	300	8×10	0.16	600
150				6.3×7.7	0.26	300	6.3×7.7	0.26	300	8×10	0.16	600	8×10	0.16	600
220	6.3×7.7	0.26	300	6.3×7.7	0.26	300	6.3×7.7	0.26	300	8×10	0.16	600	8×10	0.16	600
330	6.3×7.7	0.26	300	8×10	0.16	600	8×10	0.16	600	8×10	0.16	600	10×10	0.08	850
470	8×10	0.16	600	8×10	0.16	600	8×10	0.16	600	10×10	0.08	850			
680	8×10	0.16	600	10×10	0.08	850	10×10	0.08	850						
1000	8×10	0.16	600	10×10	0.08	850	Rated ripple current (mA rms) (105°C, 100kHz) Impedance (Ω)(20°C, 100kHz)								
1500	10×10	0.08	850												