

PC30 - Surface Mount Aluminum Electrolytic Capacitor

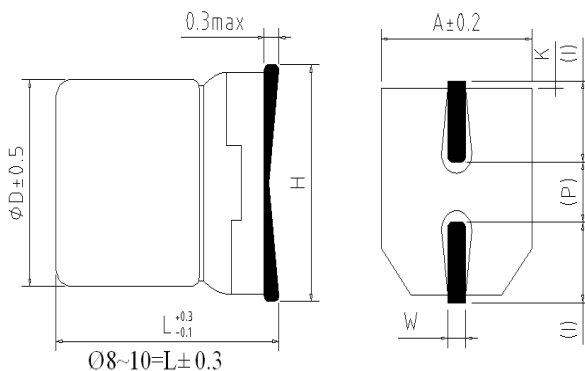
- * Features: 105°C 2000 hours, Non-polarized, Low profile vertical chip, 5.5mm height ($\leq \Phi 6.3$)
- * Recommended Applications: Suitable for AV(TV, Video, Audio), Monitor/Computer, OA/HA/Communication, Reversed polarity circuit
- * Corresponding product to RoHS



Specifications

Item	Characteristics																												
Operating Temperature Range	-40 ~ +105°C																												
Rated Voltage Range (WV)	6.3 ~ 35VDC																												
Capacitance Range	0.22 ~ 47 μ F																												
Capacitance Tolerance	$\pm 20\%$ at 120Hz, 20°C																												
Leakage Current (MAX) (20°C)	$I \leq 0.01CV$ or 3(μ A), whichever is greater. (After rated voltage applied for 2 minutes) I= Leakage Current (μ A) C= Nominal Capacitance (μ F) V= Rated Voltage (V)																												
Dissipation Factor (MAX) (tan δ) (120Hz, 20°C)	Shown in the table of standard rating																												
Low Temperature Stability Impedance Ratio (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> <th>50</th> </tr> </thead> <tbody> <tr> <td>Z(120HZ)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Z(-25°C) / Z(20°C)</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z(-40°C) / Z(20°C)</td> <td>8</td> <td>6</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> </tr> </tbody> </table>	WV	6.3	10	16	25	35	50	Z(120HZ)							Z(-25°C) / Z(20°C)	4	3	2	2	2	2	Z(-40°C) / Z(20°C)	8	6	4	4	3	3
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Endurance	<p>After applying rated voltage for 2000hrs at 105°C, the capacitors shall meet the following requirements. (The polarity shall be reversed every 250 hours)</p> <table border="1"> <tbody> <tr> <td>Capacitance Change</td> <td>Within $\pm 20\%$ of the initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 200% of the specified value</td> </tr> <tr> <td>Leakage Current</td> <td>Not more than the specified value</td> </tr> </tbody> </table>	Capacitance Change	Within $\pm 20\%$ of the initial value	Dissipation Factor	Not more than 200% of the specified value	Leakage Current	Not more than the specified value																						
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Shelf Life	After placed at 105°C without voltage applied for 1000 hours, the capacitor shall meet the same requirement as Endurance.																												

Diagram of Dimensions (mm)



ΦD	L	A	H	I	W	P	K	
4.0	5.4	4.3	5.5 Max	1.8	0.65 \pm 0.1	1.0 \pm 0.2	0.35	+0.15 -0.20
5.0	5.4	5.3	6.5 Max	2.2	0.65 \pm 0.1	1.5 \pm 0.2	0.35	+0.15 -0.20
6.3	5.4	6.6	7.8 Max	2.6	0.65 \pm 0.1	1.8 \pm 0.2	0.35	+0.15 -0.20

Multiplier for Ripple Current

Frequency coefficient				
Frequency (Hz)	60	120	1K	10K
Coefficient	0.85	1.00	1.10	1.20
Temperature coefficient				
Ambient Temperature (°C)	≤ 50	70	85	105
Coefficient	1.90	1.75	1.40	1.00

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Dimensions, Max Dissipation Factor, Max Permissible Ripple Current, Max Equivalent Series Resistance

Capacitance (μF)	Rated (Surge) Voltage															
	6.3(8)				10(13)				16(20)				25(32)			
	Size	$\tan\delta$	Ripple	ESR	Size	$\tan\delta$	Ripple	ESR	Size	$\tan\delta$	Ripple	ESR	Size	$\tan\delta$	e	ESR
2.2																
3.3													4x5.4	0.28	12	100
4.7									4x5.4	0.32	20	70.5	5x5.4	0.28	21	70.5
10					4x5.4	0.40	25	39.7	5x5.4	0.32	25	33.1	6.3x5.4	0.28	28	33.1
22	5x5.4	0.52	29	21.1	6.3x5.4	0.40	39	18.0	6.3x5.4	0.32	39	15.0				
33	6.3x5.4	0.52	43	12.0	6.3x5.4	0.40	43	14.0								
47	6.3x5.4	0.52	46	9.87												

Capacitance (μF)	Rated (Surge) Voltage							
	35(44)				50(63)			
	Size	$\tan\delta$	Ripple	ESR	Size	$\tan\delta$	Ripple	ESR
0.22					4x5.4	0.24	2	1507
0.33					4x5.4	0.24	3	1004
0.47					4x5.4	0.24	5	705
1					4x5.4	0.24	10	331
2.2	4x5.4	0.24	12	150	5x5.4	0.24	16	150
3.3	5x5.4	0.24	21	100	5x5.4	0.24	21	100
4.7	5x5.4	0.24	22	70.5	6.3x5.4	0.24	31	70.5
10	6.3x5.4	0.24	30	33.1				

☆Size:D Φ x L(mm). ☆ $\tan\delta$:20°C, 120Hz. ☆Ripple Current:105°C, 120Hz,(mA/rms) ☆ESR:20°C, 120Hz,(Ω).