

PC32 - Surface Mount Aluminum Electrolytic Capacitor

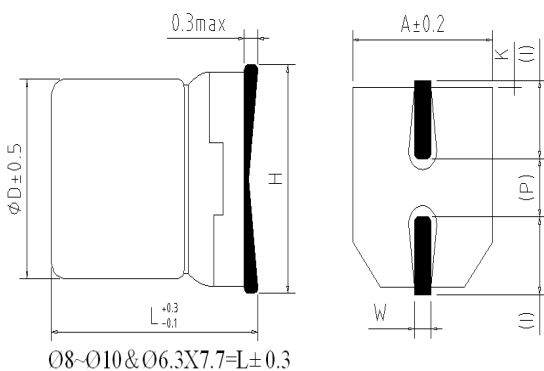
- * Features: -55~105°C 2000~5000 hours, Low profile vertical chip, Ultra low impedance
- * Recommended Applications: AV (TV, Video, Audio), Monitor/Computer, OA/HA/Communication, SMPS
- * Comply with the RoHs directive



Specifications

Item	Characteristics																								
Operating Temperature Range	-55 ~ +105°C																								
Rated Voltage Range (WV)	6.3 ~ 100VDC																								
Capacitance Range	3.3 ~4700μF																								
Capacitance Tolerance	± 20% at 120Hz, 20°C																								
Leakage Current (MAX) (20°C)	$I \leq 0.01CV$ or $3\mu A$ whichever is greater. (After rated voltage applied for 2 minutes) I = Leakage Current (μA) C = Nominal Capacitance (μF) 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 \ Z(120HZ)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>100</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> <td>2</td> <td>3</td> </tr> <tr> <td>Z(-40°C) / Z(20°C)</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table>	WV \ Z(120HZ)	6.3	10	16	25	35	50	100	Z(-25°C) / Z(20°C)	2	2	2	2	2	2	3	Z(-40°C) / Z(20°C)	3	3	3	3	3	3	3
WV \ Z(120HZ)	6.3	10	16	25	35	50	100																		
Z(-25°C) / Z(20°C)	2	2	2	2	2	2	3																		
Z(-40°C) / Z(20°C)	3	3	3	3	3	3	3																		
Endurance	<p>After 5000hrs. (2000hrs $\Phi 4$~$\Phi 6.3 \times 5.4$ & $\Phi 8 \times 6.2$) application of the rated voltage at 105°C, they meet the characteristic listed below.</p> <table border="1"> <tbody> <tr> <td>Capacitance Change</td> <td colspan="2">Within ± 30% of the initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td colspan="2">Not more than 200% of the specified value</td> </tr> <tr> <td>Leakage Current</td> <td colspan="2">Not more than the specified value</td> </tr> <tr> <td>DΦ</td> <td>4x5.4~8x6.2</td> <td>8x10.2~10x10.2</td> </tr> <tr> <td>Life</td> <td>2000hrs</td> <td>5000hrs</td> </tr> </tbody> </table>	Capacitance Change	Within ± 30% of the initial value		Dissipation Factor	Not more than 200% of the specified value		Leakage Current	Not more than the specified value		D Φ	4x5.4~8x6.2	8x10.2~10x10.2	Life	2000hrs	5000hrs									
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D Φ	4x5.4~8x6.2	8x10.2~10x10.2																							
Life	2000hrs	5000hrs																							
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	I	W	P	K	
4.0	5.8	4.3	1.8	0.65±0.1	1.0±0.2	0.30	+0.15 -0.20
5.0	5.8	5.3	2.1	0.65±0.1	1.3±0.2	0.30	+0.15 -0.20
6.3	5.8	6.6	2.4	0.65±0.1	2.2±0.2	0.30	+0.15 -0.20
6.3	7.7	6.6	2.4	0.65±0.1	2.2±0.2	0.30	+0.15 -0.20
8.0	6.2	8.3	3.4	0.65±0.1	2.2±0.2	0.50	+0.15 -0.20
8.0	10.5	8.3	3.0	0.8±0.2	3.1±0.2	0.50±0.2	
10.0	10.5	10.3	3.2	0.8±0.2	4.4±0.2	0.50±0.2	
12.0	13.5	13.0	4.7	0.8±0.2	4.4±0.2	0.50±0.2	
12.50	16.00	13.00	4.70	0.8±0.2	4.4±0.2	0.50±0.2	
16.00	16.50	6.70	5.50	0.8±0.2	6.7±0.2	0.50±0.2	

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Multiplier for Ripple Current

Frequency coefficient				
Frequency (Hz)	120	1K	10K	100K
Coefficient	0.70	0.80	0.90	1.00
Temperature coefficient				
Ambient Temperature (°C)	≤ 50	70	85	105
Coefficient	1.90	1.75	1.40	1.00

Case Size / tan δ / Max Ripple Current / Impedance

Capacitance (μF)	Rated (Surge) Voltage											
	6.3V				10V				16V			
	ΦDxL	tanδ	RC	Z	ΦDxL	tanδ	RC	Z	ΦDxL	tanδ	RC	Z
22	4x5.8	0.26	90	1.35	4x5.8	0.19	90	1.35	5x5.8	0.16	160	0.70
33	4x5.8	0.26	90	1.35	4x5.8	0.19	90	1.35	6.3x5.8	0.16	240	0.36
47	5x5.8	0.26	160	0.70	5x5.8	0.19	160	0.70	6.3x5.8	0.16	240	0.36
100	6.3x5.8	0.26	240	0.36	6.3x7.7	0.19	300	0.26	6.3x7.7	0.16	300	0.26
150	6.3x5.8	0.26	240	0.36	6.3x7.7	0.19	300	0.26	6.3x7.7	0.16	300	0.26
220	8x6.2	0.26	300	0.26	8x6.2	0.19	300	0.26	8x10.5	0.16	600	0.16
330	8x6.2	0.26	300	0.26	8x10.5	0.19	600	0.16	8x10.5	0.16	600	0.16
470	8x10.5	0.26	600	0.16	10x10.5	0.19	850	0.08	10x10.5	0.16	850	0.08
680	8x10.5	0.26	600	0.16	10x10.5	0.19	850	0.08	10x10.5	0.16	850	0.08
1000	8x10.5	0.26	600	0.16	10x10.5	0.19	850	0.08	12.5x13.5	0.16	1100	0.06
1500	10x10.5	0.26	850	0.08	12.5x13.5	0.19	1100	0.06	16x16.5	0.16	1450	0.05
2200	12.5x13.5	0.26	1100	0.06	12.5x16	0.19	1200	0.055				
3300	12.5x16	0.26	1200	0.055	16x16.5	0.19	1450	0.05				
4700	16x16.5	0.26	1450	0.05								

Capacitance (μF)	Rated (Surge) Voltage											
	25V				35V				50V			
	ΦDxL	tanδ	RC	Z	ΦDxL	tanδ	RC	Z	ΦDxL	tanδ	RC	Z
33	5x5.8	0.14	160	0.70	6.3x5.8	0.12	240	0.36	6.3x7.7	0.1	195	0.68
47	6.3x5.8	0.14	240	0.36	6.3x5.8	0.12	240	0.36	6.3x7.7	0.1	195	0.68
68	6.3x7.7	0.14	300	0.26	6.3x7.7	0.12	300	0.26	8x10.5	0.1	350	0.34
100	6.3x7.7	0.14	300	0.26	8x10.5	0.12	600	0.16	10x10.5	0.1	670	0.18
150	6.3x7.7	0.14	300	0.26	8x10.5	0.12	600	0.16	10x10.5	0.1	670	0.18
220	8x10.5	0.14	600	0.15	8x10.5	0.12	600	0.12	10x10.5	0.1	670	0.18
330	8x10.5	0.14	600	0.16	10x10.5	0.12	850	0.08	12.5x13.5	0.1	900	0.12
470	10x10.5	0.14	850	0.07	10x13.5	0.12	950	0.07	12.5x16	0.1	1250	0.08
680	12.5x13.5	0.16	1100	0.06	12.5x16	0.14	1200	0.055				
1000	12.5x16	0.16	1450	0.05	16x16.5	0.14	1450	0.05				
1500	16x16.5	0.16	1450	0.05								

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Capacitance (μF)	Rated (Surge) Voltage											
	63V				80V				100V			
	$\Phi\text{D}\times\text{L}$	$\text{tan}\delta$	RC	Z	$\Phi\text{D}\times\text{L}$	$\text{tan}\delta$	RC	Z	$\Phi\text{D}\times\text{L}$	$\text{tan}\delta$	RC	Z
3.3					5x5.8	0.08	25	5.00				
4.7	5x5.8	0.08	50	3.00	6.3x5.8	0.08	40	3.00				
10	6.3x5.8	0.08	80	1.50	6.3x7.7	0.08	60	2.40	8x10.5	0.07	130	1.30
22	6.3x7.7	0.08	120	1.20	8x10.5	0.08	130	1.30	8x10.5	0.07	130	1.30
33	8x10.5	0.08	250	0.65	8x10.5	0.08	130	1.30	10x10.5	0.07	300	0.70
47	8x10.5	0.08	250	0.65	10x10.5	0.08	200	0.70	10x13.5	0.07	250	0.60
68	8x10.5	0.08	250	0.65	12.5x13.5	0.08	500	0.32	12.5x13.5	0.07	500	0.32
100	10x10.5	0.08	400	0.35	12.5x13.5	0.08	500	0.32	12.5x16	0.07	550	0.26
150	10x13.5	0.08	850	0.25	12.5x13.5	0.08	500	0.32				
220	10x13.5	0.08	650	0.25	12.5x16	0.08	550	0.26				
330	16x16.5	0.08	1400	0.08	16x16.5	0.08	795	0.17				

☆CASE SIZE : $\Phi\text{D}\times\text{L}(\text{mm})$ · MAX DISSIPATION FACTOR : $\text{tan}\delta / 120 \text{ Hz}, 20^\circ\text{C}$ ·

MAX PERMISSIBLE RIPPLE CURRENT : $\text{RC}(\text{mA rms}) / 100\text{KHz}, 105^\circ\text{C}$ ·

MAX IMPEDANCE : $Z(\Omega) / 100\text{KHz}, 20^\circ\text{C}$