

# SURFACE MOUNT ALUMINUM ELECTROLYTIC

## XV Ultra Low Impedance & Long Life Series

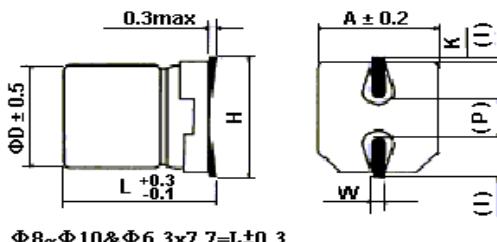
- Features : 105°C 3000~5000 hours , Low profile vertical chip, Ultra low impedance
- Recommended Applications: AV(TV,Video,Audio) ,Monitor/Computer, OA/HA/Communication ,SMPS
- Corresponding product to RoHS



### ■ Specifications

Item	Characteristics																																									
Operating Temperature Range	-55 ~ +105°C																																									
Rated Voltage Range (WV)	6.3 ~ 50VDC																																									
Capacitance Range	1.0 ~ 1000 $\mu$ F																																									
Capacitance Tolerance	$\pm 20\%$ 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 ( $\mu$ A) C= Nominal Capacitance ( $\mu$ F) V= Rated Voltage (V)																																									
Dissipation Factor (MAX) ( $\tan \delta$ ) (120Hz ,20°C)	Shown in the table of standard rating																																									
Low Temperature Stability Impedance Ratio (MAX)	<table border="1"> <tr> <td>WV Z(120HZ)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <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> </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> </tr> </table>							WV Z(120HZ)	6.3	10	16	25	35	50	Z(-25°C) / Z(20°C)	2	2	2	2	2	2	Z(-40°C) / Z(20°C)	3	3	3	3	3	3														
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Endurance	<p>After applying rated voltage with rated ripple current for 3000~5000 hours at 105 °C, the capacitor shall meet the following requirement.</p> <table border="1"> <tr> <td>Capacitance Change</td> <td colspan="6">Within<math>\pm 30\%</math> of the initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td colspan="6">Not more than 200% of the specified value</td> </tr> <tr> <td>Leakage Current</td> <td colspan="6">Not more than the specified value</td> </tr> <tr> <td>DΦ</td> <td colspan="3">4x5.4~6.3x7.7</td> <td colspan="3">8x10.2~10x10.2</td> </tr> <tr> <td>Life</td> <td colspan="3">3000hrs</td> <td colspan="3">5000hrs</td> </tr> </table>							Capacitance Change	Within $\pm 30\%$ of the initial value						Dissipation Factor	Not more than 200% of the specified value						Leakage Current	Not more than the specified value						DΦ	4x5.4~6.3x7.7			8x10.2~10x10.2			Life	3000hrs			5000hrs		
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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)



$\phi$ D	L	A	H	I	W	P	K
4.0	5.4	4.3	5.5 Max	1.8	0.65±0.1	1.0±0.2	0.35 +0.15 -0.20
5.0	5.4	5.3	6.5 Max	2.2	0.65±0.1	1.5±0.2	0.35 +0.15 -0.20
6.3	5.4	6.6	7.8 Max	2.6	0.65±0.1	1.8±0.2	0.35 +0.15 -0.20
6.3	7.7	6.6	7.8 Max	2.6	0.65±0.1	1.8±0.2	0.35 +0.15 -0.20
8.0	10.2	8.3	10.0 Max	3.4	0.90±0.2	3.1±0.2	0.70±0.2
10.0	10.2	10.3	12.0 Max	3.5	0.90±0.2	4.6±0.2	0.70±0.2

### ■ Multiplier for Ripple Current

Frequency coefficient

Frequency (Hz)	120	1K	10K	100K
Coefficient	0.70	0.80	0.90	1.00

**XV****SURFACE MOUNT ALUMINUM ELECTROLYTIC****Ultra Low Impedance & Long Life  
Series****■ Case Size / tan δ / Max Ripple Current / Impedance**

Capacitance ( $\mu$ F)	Rated (Surge) Voltage											
	6.3(8)				10(13)				16(20)			
	$\phi$ DxL	tan δ	RC	Z	$\phi$ DxL	tan δ	RC	Z	$\phi$ DxL	tan δ	RC	Z
22	4x5.4	0.26	90	1.93	4x5.4	0.19	90	1.93	5x5.4	0.16	160	1.00
33	4x5.4	0.26	90	1.93	5x5.4	0.19	160	1.00	6.3x5.4	0.16	240	0.52
47	5x5.4	0.26	160	1.00	6.3x5.4	0.19	190	0.52	6.3x5.4	0.16	240	0.52
100	6.3x5.4	0.26	240	0.52	6.3x5.4	0.19	190	0.52	6.3x7.7	0.16	280	0.34
150	6.3x7.7	0.26	240	0.30	6.3x7.7	0.19	240	0.34	8x10.2	0.16	370	0.22
220	6.3x7.7	0.26	240	0.30	8x10.2	0.19	600	0.16	8x10.2	0.16	370	0.22
330	8x10.2	0.26	600	0.16	8x10.2	0.19	600	0.16	8x10.2	0.16	600	0.16
470	8x10.2	0.26	600	0.16	10x10.2	0.19	850	0.12	10x10.2	0.16	850	0.12
680	10x10.2	0.26	850	0.12	10x10.2	0.19	850	0.12				
1000	10x10.2	0.26	850	0.12								

Capacitance ( $\mu$ F)	Rated (Surge) Voltage											
	25(32)				35(44)				50(63)			
	$\phi$ DxL	tan δ	RC	Z	$\phi$ DxL	tan δ	RC	Z	$\phi$ DxL	tan δ	RC	Z
1									4x5.4	0.12	60	5.00
2.2									4x5.4	0.12	60	5.00
3.3									4x5.4	0.12	60	5.00
4.7					4x5.4	0.12	90	1.93	5x5.4	0.12	95	4.00
10	4x5.4	0.14	90	1.93	5x5.4	0.12	160	1.00	6.3x5.4	0.12	140	2.60
22	5x5.4	0.14	160	1.00	5x5.4	0.12	160	1.00	6.3x7.7	0.12	230	1.30
33	6.3x5.4	0.14	240	0.52	6.3x5.4	0.12	240	0.52	8x10.2	0.12	350	0.50
47	6.3x5.4	0.14	240	0.52	6.3x7.7	0.12	280	0.34	10x10.2	0.12	670	0.34
68	6.3x7.7	0.14	280	0.34	6.3x7.7	0.12	280	0.34	10x10.2	0.12	670	0.34
100	6.3x7.7	0.14	300	0.34	8x10.2	0.12	600	0.16	10x10.2	0.12	670	0.34
150	8x10.2	0.14	600	0.16	10x10.2	0.12	850	0.12				
220	8x10.2	0.14	600	0.16	10x10.2	0.12	850	0.12				
330	10x10.2	0.14	850	0.12								

☆CASE SIZE :  $\phi$  DxL(mm)、 MAX DISSIPATION FACTOR : tan δ / 120Hz,20°C 、  
MAX PERMISSIBLE RIPPLE CURRENT : RC(mArms) / 100KHz,105°C 、  
MAX IMPEDANCE : Z( $\Omega$ ) / 100KHz,20°C