

# CapXon EV series

## EV Series High CV

### Features

- ◆ Chip type long life capacitance in large case sizes
- ◆ Chip type with load life of 1000 hours at +105°C
- ◆ Designed for surface mounting on high density PC board
- ◆ Applicable to automatic insertion machine using carrier tape
- ◆ For detail specifications, please refer to Engineering Bulletin NO.E159
- ◆ RoHS Compliant



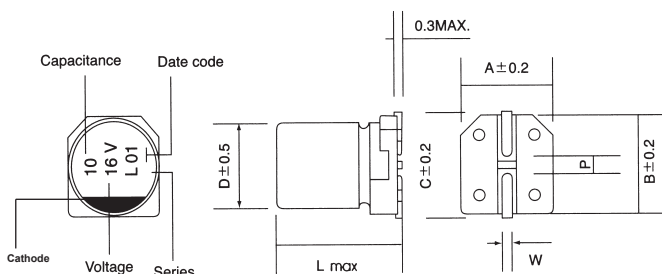
### Specifications

Item	Performance Characteristics						
Operating Temperature Range	-40~ +105°C						
Rated Voltage Range	6.3~50 VDC						
Capacitance Range	0.1 to 1500 $\mu$ F						
Capacitance Tolerance	$\pm 20\%$ (120Hz, +20°C)						
Leakage Current (+20°C, max.)	I $\leq$ 0.01 CV or 3 ( $\mu$ A) After 2 minutes whichever is greater measured with rated working voltage applied.						
Dissipation Factor (tan $\delta$ , at 20°C , 120Hz)	Working voltage(VDC)	6.3	10	16	25	35	50
	D.F.(%)max	30	24	20	18	16	14
Low Temperature Characteristics (at 120Hz)	Impedance ratio max						
	Working voltage(VDC)	6.3	10	16	25	35	50
	Z-25°C / +20°C	4	3	2	2	2	2
	Z-40°C / +20°C	8	8	4	4	3	3
Load Life	Test condition Duration time :1000 Hrs Ambient temperature :+105°C Applied voltage :Rated DC working voltage After test requirement at +20°C Capacitance change : Within $\pm 25\%$ of initial value for capacitance of 16V or less : Within $\pm 20\%$ of initial value for capacitance of 25V or more Dissipation factor : Less than 200% of specified value Leakage current : Less than specified value						
	Shelf Life Test condition Duration time :1000 Hrs Ambient temperature :+105°C Applied voltage :None After test requirement at +20°C :Same limits as Load life. Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes.						
Resistance to soldering heat	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 characteristic requirements listed under.						
	Leakage current	Less than specified value					
	Capacitance change	Within $\pm 10\%$ of initial value					
	tan $\delta$	Less than specified value					

### Multiplier for Ripple Current vs. Frequency

CAP( $\mu$ F) \ Frequency(Hz)	60(50)	120	500	1K	$\geq 10K$
0.1~47 $\mu$ F	0.8	1.0	1.20	1.30	1.50
100~1000 $\mu$ F	0.8	1.0	1.10	1.15	1.20

### Diagram of Dimensions:(unit:mm)



$\phi$ D	L	A	B	C	W	P
4	5.5	4.3	4.3	4.9	0.5~0.8	1.0
5	5.5	5.3	5.3	5.9	0.5~0.8	1.4
6.3	5.5	6.6	6.6	7.2	0.5~0.8	2.2
6.3	7.7	6.6	6.6	7.2	0.5~0.8	2.2
8	6.5	8.3	8.3	9.0	0.5~0.8	2.3
8	10.5	8.3	8.3	9.0	0.7~1.1	3.1
10	10.5	10.3	10.3	11.0	0.7~1.1	4.5

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## Case Size

φ DxL(mm)

WV(SV) Cap(μF)	6.3 (8)		10 (13)		16 (20)		25 (32)		35 (44)		50 (63)	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
0.1											4X5.5	1.0
0.22											4X5.5	2.6
0.33											4X5.5	3.2
0.47											4X5.5	3.8
1.0											4X5.5	6.3
2.2											4X5.5	11
3.3											4X5.5	14
4.7							4X5.5	16	4X5.5	16	5X5.5	22
10					4X5.5	18	4X5.5	26	4X5.5	27	6.3X5.5	33
22	4X5.5	22	4X5.5	27	4X5.5	30	5X5.5	38	6.3X5.5	42	6.3X5.5	51
33	4X5.5	30	4X5.5	25	5X5.5	40	5X5.5	48	6.3X5.5	50	6.3X7.7	60
			5X5.5	40					6.3X7.7	58	8X6.5	60
47	4X5.5	36	5X5.5	46	5X5.5	51	6.3X5.5	63	6.3X7.7	66	6.3X7.7	66
											8X6.5	66
100	5X5.5	60	6.3X5.5	60	6.3X5.5	60	6.3X7.7	91	6.3X7.7	84	8X10.5	140
							8X6.5	91	8X6.5	84		
150	6.3X5.5	86	6.3X5.5	86	6.3X7.7	95	8X10.5	140	8X10.5	155	10X10.5	180
					8X6.5	95						
220	6.3X7.7	102	6.3X7.7	105	6.3X7.7	105	8X10.5	155	10X10.5	190	10X10.5	220
	8X6.5	102	8X6.5	105								
330	6.3X7.7	105	8X10.5	195	8X10.5	195	8X10.5	175	10X10.5	300		
	8X6.5	105					10X10.5	198				
470	8X10.5	210	8X10.5	210	8X10.5	210	10X10.5	300				
1000	10X10.5	230	10X10.5	310								
1500	10X10.5	310										

Ripple Current ( mA, rms ) at 105°C 120Hz

SMD