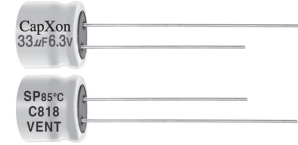


# CapXon SP Series

## SP Series 5 mm, Non-polar 85°C

### Features

- ◆ Non-polarized with 5 mm for crossover networks of height-pitched, mean and low pitched sounds in high-fidelity sound systems.
- ◆ The series offers excellent frequency characteristics and minimal capacitance deviation with frequency.
- ◆ For detail specifications, please refer to Engineering Bulletin No. E118
- ◆ RoHS Compliant



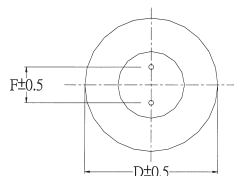
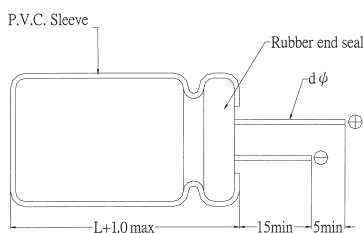
### Specifications

Item	Performance Characteristics																					
Operating Temperature Range	-40 to +85°C																					
Rated Voltage Range	6.3 to 50 VDC																					
Capacitance Range	0.1 to 47 $\mu$ F																					
Capacitance Tolerance	$\pm 20\%$ (120Hz, +20°C)																					
Leakage Current(+20°C, max)	$I \leq 0.05 CV$ or 10 ( $\mu$ A) After 2 minutes, whichever is greater measured with rated working voltage applied.																					
Dissipation Factor ( $\tan \delta$ , at 20°C , 120Hz)	<table border="1"> <thead> <tr> <th>Working Voltage (VDC)</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>D. F. (%)max</td> <td>24</td> <td>20</td> <td>17</td> <td>17</td> <td>15</td> <td>15</td> </tr> </tbody> </table>	Working Voltage (VDC)	6.3	10	16	25	35	50	D. F. (%)max	24	20	17	17	15	15							
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Low Temperature Characteristics (at 120Hz)	Impedance ratio max <table border="1"> <thead> <tr> <th>Working Voltage (VDC)</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-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>	Working Voltage (VDC)	6.3	10	16	25	35	50	Z-25°C / Z+20°C	4	3	2	2	2	2	Z-40°C / Z+20°C	8	6	4	4	3	3
Working Voltage (VDC)	6.3	10	16	25	35	50																
Z-25°C / Z+20°C	4	3	2	2	2	2																
Z-40°C / Z+20°C	8	6	4	4	3	3																
Load Life	Test conditions Duration time :1000 Hrs Ambient temperature :+85°C Applied voltage :Rated DC working voltage to each polarity for 500 Hrs After test requirements at +20°C Capacitance change : $\leq \pm 20\%$ of the initial measured value (4V : $\leq \pm 30\%$ ) Dissipation factor : $\leq 200\%$ of the initial specified value Leakage current : $\leq$ The initial specified value																					
Shelf Life	Test conditions Duration time :1000 Hrs Ambient temperature :+85°C Applied voltage :None After test requirements at +20°C : Same limits as Load life. Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes.																					

### Multiplier for Ripple Current vs. Frequency

CAP( $\mu$ F)\Frequency(Hz)	60(50)	120	400	1K	10K	50K-100K
CAP $\leq 10$	0.8	1	1.30	1.45	1.65	1.70
10<CAP $\leq 100$	0.8	1	1.23	1.36	1.48	1.53
100<CAP $\leq 1000$	0.8	1	1.16	1.25	1.35	1.38

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



D $\phi$	4	5	6.3
F	1.5 $\pm$ 0.5	2.0 $\pm$ 0.5	2.5 $\pm$ 0.5
d $\phi$	0.45		

# CapXon SP Series

## Case Size

WV (SV) Cap(μF)		φ DxD(mm)											
		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	1
0.22												4x5	2
0.33												4x5	2.8
0.47												4x5	4
1												4x5	8
2.2										4x5	8.5	5x5	13
3.3						4x5	10	5x5	13	5x5	14	5x5	15
4.7						4x5	12	5x5	15	5x5	16	6.3x5	18
10		4x5	15	4x5	16	5x5	23	6.3x5	25	6.3x5	28		
				5x5	18								
22		5x5	27	6.3x5	32	6.3x5	36						
33		6.3x5	35	6.3x5	40	6.3x5	47						
47		6.3x5	44										

Ripple Current ( mA, rms ) at 85°C 120Hz