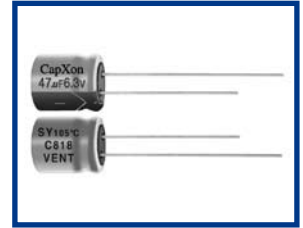


SY Series 7mm Low Impedance Long Life

Features

- ◆ Operating temperature -55~105°C.
- ◆ 105°C 2000Hours assured.
- ◆ For detail specifications, please refer to Engineering Bulletin NO.E167
- ◆ RoHS Compliant



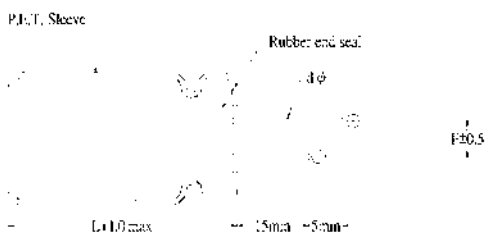
Specifications

Item	Performance Characteristics																					
Operating Temperature Range	-55 to +105°C																					
Rated Voltage Range	6.3 to 50 VDC																					
Capacitance Range	1~330 µ F																					
Capacitance Tolerance	±20%(120Hz,+20°C)																					
Leakage Current (+20°C,max.)	$I \leq 0.01 CV$ or $3 (\mu A)$ After 2 minute with rated working voltage applied.																					
Dissipation Factor ($\tan \delta$ · at 20°C · 120Hz)	<table border="1"> <tr> <td>Working Voltage(VDC)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td>D.F.(%)max.</td> <td>18</td> <td>16</td> <td>14</td> <td>12</td> <td>12</td> <td>10</td> </tr> </table>	Working Voltage(VDC)	6.3	10	16	25	35	50	D.F.(%)max.	18	16	14	12	12	10							
	Working Voltage(VDC)	6.3	10	16	25	35	50															
D.F.(%)max.	18	16	14	12	12	10																
Low Temperature Characteristics (at 120Hz)	Impedance ratio max																					
	<table border="1"> <tr> <td>Working Voltage(VDC)</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-55°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>	Working Voltage(VDC)	6.3	10	16	25	35	50	Z-25°C / Z+20°C	2	2	2	2	2	2	Z-55°C / Z+20°C	3	3	3	3	3	3
	Working Voltage(VDC)	6.3	10	16	25	35	50															
Z-25°C / Z+20°C	2	2	2	2	2	2																
Z-55°C / Z+20°C	3	3	3	3	3	3																
Load Life	Test condition Duration time :2000Hrs Ambient temperature :+105°C Applied voltage :Rated DC working voltage After test requirement at +20°C Capacitance change : within ±20% of the initial measured value Dissipation factor : ≤200% of the initial specified value Leakage current : ≤The initial specified value																					
Shelf Life	Test condition Duration time :1000Hrs 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.																					

Multiplier for Ripple Current vs. Frequency

CAP(µ F)\Frequency(Hz)	50(60)	120	400	1K	10K	50-100K
$1 \leq CAP \leq 10$	0.47	0.59	0.76	0.85	0.97	1
$10 < CAP \leq 100$	0.52	0.65	0.80	0.89	0.97	1
$100 < CAP \leq 1000$	0.58	0.72	0.84	0.90	0.98	1

Diagram of Dimensions:(unit:mm)



Dφ	4	5	6.3	8
F	1.5±0.5	2.0±0.5	2.5±0.5	3.5±0.5
dφ	0.45		0.5	

Case Size

φ DxL(mm)

Cap(μF) \ WV(SV)	6.3 (8)			10 (13)			16 (20)		
	Size	Ripple	Impedance	Size	Ripple	Impedance	Size	Ripple	Impedance
10							4X7	60	3.5
15							4X7	75	3.0
22				4X7	63	3.63	5X7	90	2
33	5X7	90	1.95	5X7	95	1.9	6.3X7	120	1.4
47	6.3X7	99	1.87	5X7	120	1.3	6.3X7	140	0.9
68	6.3X7	125	1	6.3X7	144	0.88	8X7	160	0.65
100	6.3X7	144	0.82	6.3X7	180	0.55	8X7	180	0.49
120	6.3X7	148	0.77	6.3X7	185	0.52	8X7	315	0.93
150	6.3X7	160	0.66	8X7	207	0.5	8X7	333	0.95
180	8X7	171	0.64	8X7	225	0.49	8X7	360	0.33
220	8X7	180	0.55	8X7	252	0.4	8X7	387	0.29
330	8X7	315	0.39						

Cap(μF) \ WV(SV)	25 (32)			35 (44)			50 (63)		
	Size	Ripple	Impedance	Size	Ripple	Impedance	Size	Ripple	Impedance
1							4X7	60	3.5
2.2							4X7	60	3.5
3.3							4X7	60	3.5
4.7							4X7	60	3.5
6.8				4X7	63	3.63	5X7	80	2.2
10	4X7	60	3.5	5X7	99	1.87	6.3X7	135	0.92
22	5X7	99	1.87	6.3X7	140	0.9			
33	6.3X7	144	0.88	8X7	180	0.55			
47	8X7	160	0.7	8X7	220	0.5			
68	8X7	180	0.55						
100	8X7	225	0.39						
150	8X7	306	0.35						

Ripple Current(mA,rms) at 105°C 100KHz
 Max Impedance (Ω) at 20°C 100KHz