

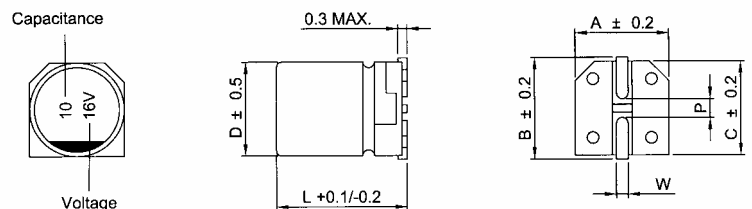
- SMD TYPE. Reflow Soldering is available.
- Life 2000 hours at 85°C
- Available For High Density Mounting

**Characteristics**

<b>Voltage Range</b>	4 to 450 VDC												
<b>Capacitance Range</b>	0.1 to 6800uF												
<b>Temperature Range</b>	-40 to +85°C												
<b>Capacitance Tolerance</b>	+20% -20% (at 20°C, 120Hz)												
<b>Leakage Current</b>	SIZE A~F: I≤0.01CV or 3uA, whichever is greater 2 minutes after Rated Voltage applied SIZE G~I(6.3V~100V): I≤0.03CV whichever is greater 1 minutes after Rated Voltage applied SIZE G~I (160V~450V): I≤0.04CV +100Ua whichever is greater 1 minutes after Rated Voltage applied												
<b>Dissipation Factor</b> (tan δ)Max  (at 20°C, 120Hz)	Voltage (V)	4	6.3	10	16	25	35	50	63	100	160~250	400~450	
	SIZE A~C	0.4	0.26	0.22	0.18	0.16	0.13	0.12	-	-	-	-	
	SIZE D~F	-	0.35	0.26	0.20	0.16	0.14	0.12	0.12	0.10	-	-	
	SIZE G~I	-	0.38	0.34	0.30	0.26	0.22	0.18	0.14	0.1	0.20	0.25	
<b>Stability at Low Temperature</b> (at 120Hz)	Voltage (V)	4	6.3	10	16	25	35	50	63	100	160~250	400~450	
	Z -25°C	SIZE A~F	7	4	3	3	2	2	2	2	3	-	-
	/Z +20°C	SIZE G~I			5	4	2	3	2	2	2	3	6
	Z -40°C	SIZE A~F	17	17	10	4	3	2	2	3	4		
/Z 20°C	SIZE G~I			12	10	5	4	3	3	3	6	10	
<b>Load Life</b>	After the rated voltage has been applied for 2000 hours at 85°C		Capacitance change					Within ±25% of initial value					
			D.F. tanδ					200% or less of initial specified value					
			Leakage current					Less than Initial specified value					
<b>Shelf Life</b>	After storage for 1000 hours at 85°C, with no voltage applied and being stabilized at +20°C, Capacitor shall meet the limit specified in load life.												

**Diagram of dimensions**

SIZE	Dφ	L	A	C	B	W	P
A	4	5.5	4.3	4.3	5.1	0.5~0.8	1.0
B	5	5.5	5.3	5.3	5.9	0.5~0.8	1.4
C	6.3	5.5	6.6	6.6	7.2	0.5~0.8	2.0
C8	6.3	7.7	6.6	6.6	7.2	0.5~0.8	2.0
D	8	6.5	8.3	8.3	9.0	0.5~0.8	2.2
E	8	10.5	8.3	8.3	9.0	0.8~1.1	3.1
F	10	10.5	10.3	10.3	11.0	0.8~1.1	4.5
G	12.5	13.5	12.8	12.8	14.4	1.1~1.4	4.6
H	12.5	16.0	12.8	12.8	14.4	1.1~1.4	4.6
I	16	16.5	16.3	16.3	17.6	1.8~12.2	6.0



## Case size & Maximum Ripple Current

mA rms 85°C 120Hz

Cap. uF	4		6.3		10		16		25		35		50	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
0.1													A	3
0.22													A	5
0.33													A	6
0.47													A	7
1													A	10
2.2													A	15
3.3													A	15
4.7													A	18
10							A	26	A	24	A, B	24/29	B, C	30/33
22			A	30	A	26	A, B	26/39	B, C	41/58	B, C	41/60	C, D	47/80
33	A	28	A	30	A	26	B	37	B, C	47/65	C	54	C8, D	70/155
47	A	33	A, B	33/46	B	44	B, C	44/58	C	60	C, D	64/155	C8, D	85/140
100	B	56	B, C	40/71	B, C	60/76	C	60	C8, D	100/160	C8, D	120/175	E, F	130/195
220	C	96	C, D	88/160	C8, D	130/250	C8, D	130/280	E	260	E, F	280/265	F	170
330	C8, D	145/152	C8, D	135/190	E	270	E	270	E, F	280	F	360	G	600
470	C8, D	200/220	E	280	E	280	E, F	280/330	F	400	G	600	I	740
1000	E	344	E, F	430/400	F	430	G	710	G	820	I	1100		
2200			G	890	H	960	I	1150	I	1450				
3300			H	1000	I	1300	I	1150						
4700			I	1400	I	1300								
6800			I	1700										

Cap. uF	63		100		160		200		250		400		450	
	Size	Ripple	Size	Ripple	Size	Ripple			Size	Ripple	Size	Ripple	Size	Ripple
0.1	A	1.3												
0.22	A	3												
0.33	A	4												
0.47	A	5												
1	A	8												
2.2	A	12												
3.3	B	17												
4.7	B	20									G	120	G	120
10	C	32	E	90					G	150	G	120	H	130
22	C8	60	E	90			G	240	G	150	I	140	I	140
33	C8	60	F	120	G	240	H	310	H	240	I	140		
47	E	130	F	120	H	370	I	340	I	340				
68	F	170	G	380	I	500	I	340						
100	G	380	G	380										
220	G	580	I	500										
330	H	720												
470	I	950												