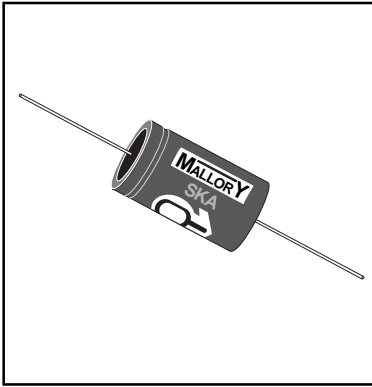


# Type SKA Axial Leaded Capacitors



- 85°C General Purpose
- Axial Leads  
Miniature Size
- High CV per Case Size
- 2000 Hour Load Life  
Data for Longer Life
- Suitable for Consumer  
Electronic Products,  
Such as Stereo Radio, TV, etc.

## GENERAL SPECIFICATIONS

Operating Temperature:  
-40°C to +85°C

Voltage Range:  
6.3 WVDC to 450 WVDC

Capacitance Range:  
0.47  $\mu$ F to 15,000  $\mu$ F

Capacitance Tolerance:  
 $\pm$ 20%

DC Leakage Current:  
6.3 - 100VDC

$I = .01CV$  or  $3\mu A$   
at 5 minutes

Over 100VDC  
 $I = .01CV + 100\mu A$   
at 5 minutes minimum

C = Capacitance in  $\mu$ F  
V = Rated Voltage  
I = Leakage Current in  $\mu A$

QA Stability Test:  
Apply WVDC for 2,000 hrs at 85°C

- Capacitance change  $\leq$ 20%  
from initial limits
- DC leakage current meets  
initial limits
- ESR  $\leq$ 150% of initial  
measured value

### Dissipation Factor:

Rated Voltage (V)	6.3	10	16	25	35	50	63	100	160-350	400-450
tan $\delta$	0.24	0.20	0.17	0.15	0.12	0.10	0.10	0.10	0.20	0.25

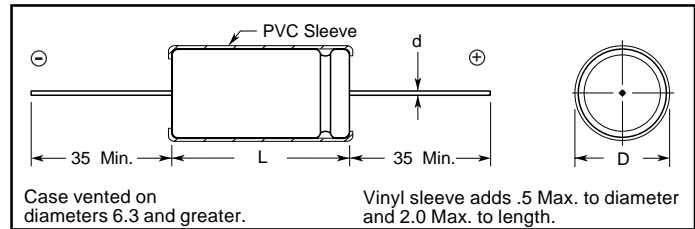
For Capacitance of more than 1,000 $\mu$ F, add 0.002 for every increase of 1,000 $\mu$ F at 120Hz/20°C

SKA parts are available taped, in Ammo Pack. See page 136 for details.

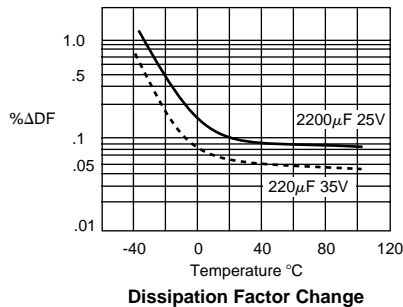
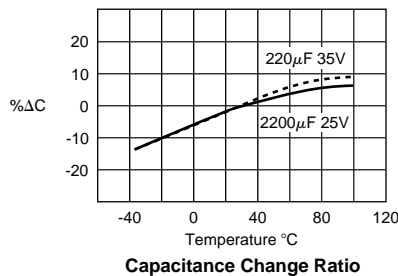
The maximum ripple current at 85°C and 120 Hz for SKA capacitors is shown in the Standard Rating Table. Maximum ripple current may be adjusted by the multipliers in the following tables.

Rated WVDC	Ripple Multipliers			Ambient Temperature	Ripple Multiplier
	60Hz	120Hz	1kHz		
6 to 25	.85	1.0	1.10	+85°C	1.00
35 to 100	.80	1.0	1.15	+75°C	1.14
160 to 250	.75	1.0	1.25	+65°C	1.25
350 to 450	.70	1.0	1.30		

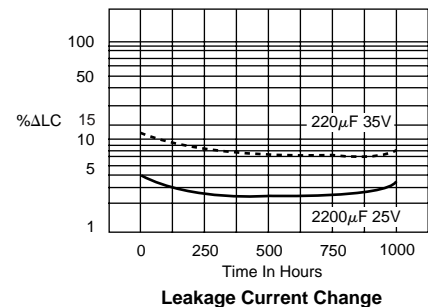
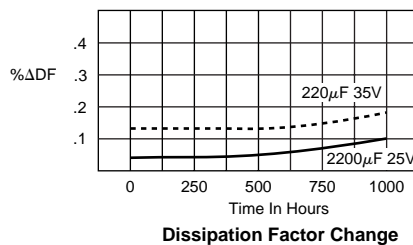
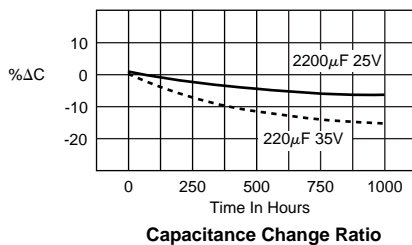
## Outline Dimensions (Millimeters)



## Temperature Characteristics



## Load Life Characteristics



# Type SKA Axial Leaded Capacitors



Cap $\mu$ F	Max ESR Ohms 120Hz 25°C	Max Ripple mA 120Hz 85°C	Max LC $\mu$ A 5 Minutes	Size (Millimeters)			Catalog Number
				D Diameter	L Length	d	
<b>6.3 WVDC; 8 VDC Surge</b>							
47	10.60	65	3.0	5	12.5	0.6	SKA470M6R3
100	5.00	116	7.0	6	12.5	0.6	SKA101M6R3
220	1.33	204	13.9	6.3	16	0.6	SKA221M6R3
330	1.10	300	20.8	8	16	0.6	SKA331M6R3
470	0.62	396	29.3	8	16	0.6	SKA471M6R3
1,000	0.30	500	63.0	10	20	0.6	SKA102M6R3
2,200	0.14	826	138.6	13	25	0.6	SKA222M6R3
3,300	0.10	1020	207.9	13	30	0.6	SKA332M6R3
10,000	0.07	1450	630.0	18	45	0.8	SKA103M6R3
15,000	0.06	1800	945.0	22	40	0.8	SKA153M6R3
<b>10 WVDC; 13 VDC Surge</b>							
47	6.94	75	5.0	5	12.5	0.6	SKA470M010
100	3.26	180	10.0	6	16	0.6	SKA101M010
220	1.48	204	22.0	8	16	0.6	SKA221M010
330	0.99	249	33.0	8	16	0.6	SKA331M010
470	0.67	400	47.0	8	20	0.6	SKA471M010
1,000	0.33	585	100.0	10	20	0.6	SKA102M010
2,200	0.15	920	220.0	13	25	0.6	SKA222M010
3,300	0.10	1090	330.0	13	30	0.6	SKA332M010
4,700	0.08	1200	470.0	16	30	0.8	SKA472M010
<b>16 WVDC; 20 VDC Surge</b>							
33	6.84	60	5.3	6	12.5	0.6	SKA330M016
47	4.80	70	7.5	6	12.5	0.6	SKA470M016
100	2.76	125	16.0	6	16	0.6	SKA101M016
220	1.27	221	35.2	8	16	0.6	SKA221M016
330	0.85	350	52.8	8	20	0.6	SKA331M016
470	0.53	440	75.2	10	16	0.6	SKA471M016
1,000	0.21	680	180.0	10	25	0.6	SKA102M016
2,200	0.11	1000	352.0	13	30	0.6	SKA222M016
3,300	0.10	1200	528.0	16	30	0.8	SKA332M016
4,700	0.07	1360	752.0	16	40	0.8	SKA472M016
<b>25 WVDC; 32 VDC Surge</b>							
22	10.05	53	5.5	6	12.5	0.6	SKA220M025
33	6.70	77	8.3	6	12.5	0.6	SKA330M025
47	4.70	91	11.8	6	12.5	0.6	SKA470M025
100	2.21	158	25.0	8	16	0.6	SKA101M025
220	1.01	257	55.0	8	20	0.6	SKA221M025
330	0.76	367	82.5	10	16	0.6	SKA331M025
470	0.47	480	118.0	10	20	0.6	SKA471M025
1,000	0.22	850	250.0	13	25	0.6	SKA102M025
2,200	0.11	1200	550.0	16	30	0.8	SKA222M025
3,300	0.09	1300	825.0	16	40	0.8	SKA332M025
4,700	0.07	1500	1175.0	18	40	0.8	SKA472M025
<b>35 WVDC; 44 VDC Surge</b>							
10	17.68	35	3.5	5	12.5	0.6	SKA100M035
22	8.08	53	7.7	6	12.5	0.6	SKA220M035
33	5.54	70	11.6	6	16	0.6	SKA330M035
47	3.76	121	16.5	6	16	0.6	SKA470M035
100	1.77	194	35.0	8	16	0.6	SKA101M035
220	0.80	335	77.0	10	16	0.6	SKA221M035
330	0.54	440	115.0	10	20	0.6	SKA331M035
470	0.38	550	164.5	10	25	0.6	SKA471M035
1,000	0.18	992	350.0	13	30	0.6	SKA102M035
2,200	0.09	1250	770.0	16	40	0.8	SKA222M035
3,300	0.07	1400	1155.0	18	40	0.8	SKA332M035
4,700	0.06	1600	1645.0	22	40	0.8	SKA472M035
<b>50 WVDC; 63 VDC Surge</b>							
10	14.74	36	5.0	6	12.5	0.6	SKA100M050
22	6.70	58	11.0	6	16	0.6	SKA220M050
33	4.47	111	16.5	6	16	0.6	SKA330M050
47	3.14	130	23.5	8	16	0.6	SKA470M050
100	1.47	250	50.0	8	20	0.6	SKA101M050
220	0.67	388	110.0	10	20	0.6	SKA221M050

Cap $\mu$ F	Max ESR Ohms 120Hz 25°C	Max Ripple mA 120Hz 85°C	Max LC $\mu$ A 5 Minutes	Size (Millimeters)			Catalog Number
				D Diameter	L Length	d	
<b>50 WVDC; 63 VDC Surge</b>							
330	0.45	433	165.0	10	25	0.6	SKA331M050
470	0.31	650	235.0	13	25	0.6	SKA471M050
1,000	0.15	1050	500.0	16	30	0.8	SKA102M050
2,200	0.08	1300	1100.0	18	40	0.8	SKA222M050
3,300	0.06	1500	1650.0	22	40	0.8	SKA332M050
4,700	0.06	3305	2350.0	22	40	0.8	SKA472M050
<b>63 WVDC; 79 VDC Surge</b>							
4.7	31.40	32	3.0	6	12.5	0.6	SKA4R7M063
10	14.70	51	6.3	6	12.5	0.6	SKA100M063
22	6.70	91	13.9	6	16	0.6	SKA220M063
33	4.47	111	20.8	8	16	0.6	SKA330M063
47	3.14	133	29.6	8	16	0.6	SKA470M063
100	1.47	247	63.0	10	16	0.6	SKA101M063
220	0.67	450	138.6	10	25	0.6	SKA221M063
330	0.45	550	207.9	13	25	0.6	SKA331M063
470	0.31	750	296.1	13	30	0.6	SKA471M063
1,000	0.15	1100	630.0	16	40	0.8	SKA102M063
2,200	0.08	1400	1386.0	22	40	0.8	SKA222M063
<b>100 WVDC; 125 VDC Surge</b>							
0.47	250.80	5	3.0	5	12.5	0.6	SKAR47M100
1	117.90	12	3.0	5	12.5	0.6	SKA010M100
2.2	53.59	21	3.0	6	12.5	0.6	SKA2R2M100
3.3	35.73	30	3.3	6	12.5	0.6	SKA3R3M100
4.7	25.08	39	4.7	6	12.5	0.6	SKA4R7M100
10	11.79	68	10.0	6	16	0.6	SKA100M100
22	5.36	111	22.0	8	16	0.6	SKA220M100
33	3.57	136	33.0	8	20	0.6	SKA330M100
47	2.51	189	47.0	10	20	0.6	SKA470M100
68	1.98	1260	68.0	10	20	0.6	SKA680M100
100	1.18	350	100.0	10	25	0.6	SKA101M100
220	0.54	550	220.0	13	30	0.6	SKA221M100
330	0.36	700	330.0	16	30	0.8	SKA331M100
470	0.25	1031	470.0	16	40	0.8	SKA471M100
1,000	0.12	1447	1000.0	22	40	0.8	SKA102M100
<b>160 WVDC; 200 VDC Surge</b>							
1	266.00	13	101.6	6	16	0.6	SKA010M160
2.2	121.00	22	103.5	6	16	0.6	SKA2R2M160
3.3	80.40	31	105.3	8	16	0.6	SKA3R3M160
4.7	56.50	40	107.5	8	16	0.6	SKA4R7M160
10	26.60	63	116.0	8	20	0.6	SKA100M160
22	12.10	108	135.2	10	20	0.6	SKA220M160
33	8.04	144	152.8	10	25	0.6	SKA330M160
47	5.65	180	175.2	13	30	0.6	SKA470M160
100	2.66	270	260.0	13	30	0.6	SKA101M160
150	1.21	400	340.0	16	30	0.8	SKA151M160
<b>200 WVDC; 250 VDC Surge</b>							
1	332.00	17	102.5	6	16	0.6	SKA010M200
2.2	151.00	30	105.5	6	16	0.6	SKA2R2M200
3.3	101.00	40	108.3	8	16	0.6	SKA3R3M200
4.7	70.60	50	111.7	8	16	0.6	SKA4R7M200
10	33.20	80	125.0	8	20	0.6	SKA100M200
15	25.60	105	137.5	10	16	0.6	SKA150M200
22	15.10	140	155.0	10	20	0.6	SKA220M200
33	10.10	175	182.5	10	25	0.6	SKA330M200
47	7.06	215	217.5	13	25	0.6	SKA470M200
68	5.58	265	270.0	13	30	0.6	SKA680M200
100	3.32	340	350.0	16	30	0.8	SKA101M200
150	1.34	403	475.0	16	30	0.8	SKA151M200

Aluminum Capacitors

# Type SKA Axial Leaded Capacitors



Cap $\mu$ F	Max ESR Ohms 120Hz 25°C	Max Ripple mA 120Hz 85°C	Max LC $\mu$ A 5 Minutes	Size (Millimeters)			Catalog Number
				D Diameter	L Length	d	

250 WVDC; 300 VDC Surge							
1	332.00	13	102.5	6	16	0.6	SKA010M250
2.2	151.00	23	105.5	8	16	0.6	SKA2R2M250
3.3	101.00	31	108.3	8	16	0.6	SKA3R3M250
4.7	70.60	37	111.7	8	20	0.6	SKA4R7M250
10	33.20	67	125.0	10	16	0.6	SKA100M250
22	15.10	118	155.0	10	25	0.6	SKA220M250
33	10.10	161	182.5	13	21	0.6	SKA330M250
47	7.06	211	217.5	13	25	0.6	SKA470M250
100	3.32	419	350.0	16	33	0.8	SKA101M250
150	1.34	764	475.0	16	40	0.8	SKA151M250

350 WVDC; 400 VDC Surge							
0.47	881.84	25	101.6	8	16.5	0.6	SKAR47M350
1	332.00	16	104.0	8	16	0.6	SKA010M350
2.2	151.00	25	108.0	8	16	0.6	SKA2R2M350
3.3	101.00	31	112.0	8	20	0.6	SKA3R3M350
4.7	70.60	60	117.0	10	20	0.6	SKA4R7M350
10	33.20	75	135.0	10	20	0.6	SKA100M350
22	15.10	177	177.0	13	21	0.6	SKA220M350
33	10.10	200	216.0	13	25	0.6	SKA330M350
47	7.06	240	365.0	13	30	0.6	SKA470M350
100	3.32	350	450.0	16	40	0.8	SKA101M350
150	1.34	823	625.0	18	40	0.8	SKA151M350

Cap $\mu$ F	Max ESR Ohms 120Hz 25°C	Max Ripple mA 120Hz 85°C	Max LC $\mu$ A 5 Minutes	Size (Millimeters)			Catalog Number
				D Diameter	L Length	d	

400 WVDC; 450 VDC Surge							
2.2	151.00	55	108.8	8	20	0.6	SKA2R2M400
3.3	101.00	70	113.2	10	20	0.6	SKA3R3M400
4.7	70.60	90	118.8	10	25	0.6	SKA4R7M400
10	33.20	150	140.0	10	25	0.6	SKA100M400
22	15.10	230	188.0	13	25	0.6	SKA220M400
33	10.10	300	232.0	13	30	0.6	SKA330M400
47	7.06	318	288.0	16	30	0.8	SKA470M400
100	3.32	555	500.0	18	40	0.8	SKA101M400

450 WVDC; 500 VDC Surge							
1	332.00	17	104.5	8	16	0.6	SKA010M450
2.2	151.00	30	109.9	8	20	0.6	SKA2R2M450
3.3	101.00	39	114.9	10	20	0.6	SKA3R3M450
4.7	70.60	51	121.2	10	25	0.6	SKA4R7M450
10	33.20	89	145.0	13	21	0.6	SKA100M450
15	25.60	183	167.5	13	25	0.6	SKA150M450
22	15.10	175	199.0	13	30	0.6	SKA220M450
33	10.10	241	248.5	16	30	0.8	SKA330M450
47	7.06	318	311.5	13	33	0.6	SKA470M450
68	5.58	412	406.0	18	40	0.8	SKA680M450
100	3.32	555	550.0	22	40	0.8	SKA101M450