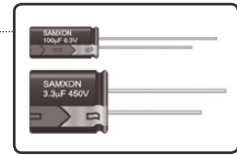


FEATURES

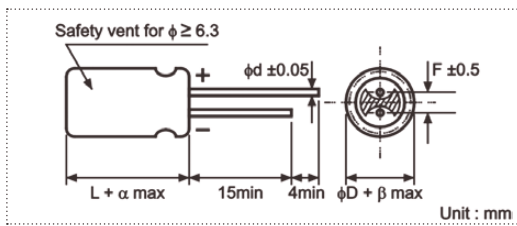
- High CV value, guarantee 2,000 hours load life at 85°C.
- Suitable for use in electronic circuits in colour TV receiver, video recorder etc.



SPECIFICATIONS

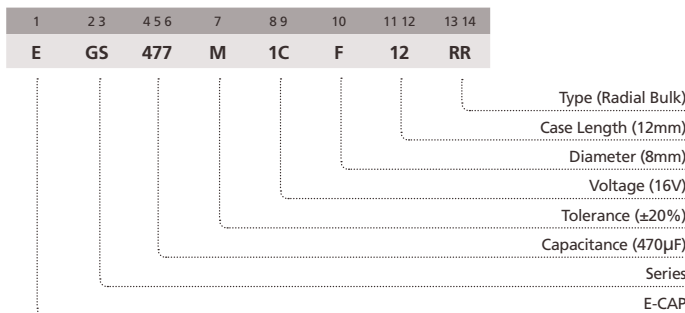
Item	Performance Characteristics	
Operating Temperature Range	-40 to +85°C	-25 to +85°C
Rated Working Voltage Range	6.3 to 100V	160 to 450V
Nominal Capacitance Range	2.2 to 22000µF	
Capacitance Tolerance	±20% at 120Hz, +20°C	
Leakage Current	I ≤ 0.01CV or 3 (µA) whichever is greater measured after 2 minutes application of rated working voltage at +20°C	
tan δ (120Hz, +20°C)	Working Voltage (V)	6.3 10 16 25 35 50 63 100
	tan δ (max.)	0.28 0.24 0.20 0.16 0.14 0.12 0.10 0.08
	Working Voltage (V)	160 200 250 350 400 450
	tan δ (max.)	0.20 0.20 0.20 0.25 0.25 0.25
Low Temperature Characteristics	For capacitance value >1000µF, add 0.02 per another 1000µF	
	Impedance ratio max. at 120Hz	
	Working Voltage (V)	6.3 10 16 25 35 50 63 100
	Z-25°C / Z+20°C	5 4 3 2 2 2 2 2
	Z-40°C / Z+20°C	12 10 8 5 4 3 3 3
	Working Voltage (V)	160 200 250 350 400 450
High Temperature Loading	Test time : 2,000 hours	
	Test temperature : +85°C	
	Test conditions : Rated DC working voltage with rated ripple current	
Shelf Life	At +85°C no voltage applied after 1,000 hours and then being stabilized at +20°C the capacitors shall meet the following limits	
	Leakage current : ≤Initial specified value	
	Cap. change : within ±20% of the initial measured value	
Industrial Standard	JIS C - 5101-4 (IEC 60384-4)	

CASE SIZE TABLE



ΦD	8 (L <20)	8 (L ≥20)	10	12.5	16	18	22	25
F	3.5	3.5	5.0	5.0	7.5	7.5	10.0	12.5
Φd	0.5	0.6	0.6	0.6	0.8	0.8	0.8	1.0
α	(L <20) 1.5				(L ≥20) 2.0			
β	(D <20) 0.5				(D ≥20) 1.0			

PART NUMBER SYSTEM (EXAMPLE : 16V 470µF)



STANDARD RATINGS

Voltage (Code)		6.3V (0J)		10V (1A)		16V (1C)		25V (1E)	
Cap. (µF)	Code	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current
220	227							8 x 12	370
330	337							8 x 12	453
470	477					8 x 12	499	10 x 12.5	628
680	687	8 x 12	503	8 x 12	546	10 x 12.5	690	10 x 16	826
1000	108	8 x 12	610	10 x 12.5	791	10 x 16	928	10 x 20	1094
1500	158	10 x 12.5	780	10 x 16	875	10 x 20	1025	12.5 x 20	1210
2200	228	10 x 16	890	10 x 20	1226	12.5 x 20	1555	12.5 x 25	1800
3300	338	10 x 20	1350	12.5 x 20	1685	12.5 x 25	1990	16 x 25	2304
4700	478	12.5 x 20	1822	12.5 x 25	2103	16 x 25	2487	16 x 30	2854
6800	688	12.5 x 25	1930	16 x 25	2606	16 x 30	3010	16 x 40	3528
								18 x 35	3546
10000	109	16 x 25	2760	16 x 30	2960	16 x 35	3490		
15000	159	16 x 35	2860	16 x 40	3100				
22000	229	18 x 40	3400						

Maximum Allowable Ripple Current (mArms) at 85°C 120Hz

Case Size Φ D x L (mm)

Voltage (Code)		35V (1V)		50V (1H)		63V (1J)		100V (2A)	
Cap. (µF)	Code	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current
33	336							8 x 12	187
47	476							10 x 12.5	259
68	686					8 x 12	220	10 x 16	290
100	107			8 x 12	306	8 x 12	321	10 x 20	453
220	227	8 x 12	405	10 x 12.5	506	10 x 16	615	12.5 x 20	742
330	337	10 x 12.5	576	10 x 16	706	10 x 20	823	12.5 x 25	987
470	477	10 x 16	753	10 x 20	811	12.5 x 20	1153	16 x 25	1394
680	687	10 x 20	988	12.5 x 20	988	12.5 x 25	1512	16 x 30	1400
1000	108	12.5 x 20	1407	12.5 x 25	1715	16 x 25	2037	18 x 35	1995
2200	228	16 x 25	2134	16 x 30	2320	18 x 35	2300		
3300	338	16 x 30	2338	18 x 35	3218	18 x 40	2500		
4700	478	18 x 35	3400	18 x 40	3336				
5600	568	18 x 40	3411						
6800	688	18 x 40	3500						

Maximum Allowable Ripple Current (mArms) at 85°C 120Hz

Case Size Φ D x L (mm)

Specifications are subject to change without notice. Should a safety or technical concern arise regarding the product, please be sure to contact our sales offices or agents immediately.

STANDARD RATINGS

Voltage (Code)		160V (2C)		200V (2D)		250V (2E)		350V (2V)	
Cap. (μF)	Code	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current
3.3	335							8 x 12	56
4.7	475							10 x 12.5	77
10	106	8 x 12	82	8 x 12	90	10 x 12.5	113	10 x 16	120
22	226	10 x 16	150	10 x 16	168	10 x 20	185	12.5 x 20	233
33	336	10 x 20	243	10 x 20	245	10 x 20	198	16 x 25	312
47	476	10 x 20	307	12.5 x 20	343	12.5 x 20	235	16 x 25	413
68	686	12.5 x 20	350	12.5 x 25	350	16 x 25	380	16 x 25	450
100	107	12.5 x 25	541	16 x 25	601	16 x 25	572	18 x 35	518
220	227	16 x 30	976	16 x 35	1138				
330	337	18 x 35	1346	18 x 35	1324				

Maximum Allowable Ripple Current (mArms) at 85°C 120Hz

Case Size Φ D x L (mm)

Voltage (Code)		400V (2G)		450V (2W)	
Cap. (μF)	Code	Case Size	Ripple Current	Case Size	Ripple Current
2.2	225	8 x 12	47	8 x 12	40
3.3	335	8 x 12	55	10 x 12.5	54
4.7	475	10 x 12.5	73	10 x 16	72
10	106	10 x 16	120	10 x 20	98
22	226	12.5 x 20	230	12.5 x 25	202
33	336	16 x 25	345	16 x 25	271
47	476	16 x 25	437	16 x 30	355
68	686	16 x 30	500	18 x 35	360
82	826	16 x 30	550	18 x 40	385
100	107	18 x 35	720		

Maximum Allowable Ripple Current (mArms) at 85°C 120Hz

Case Size Φ D x L (mm)

RIPPLE CURRENT MULTIPLIER

Frequency Coefficient

Rated Voltage	Coefficient		50	120	300	1k	10k~
	Cap. (μF)	Freq. (Hz)					
6.3~100V	≤47		0.75	1.00	1.35	1.57	2.00
	68~470		0.80	1.00	1.23	1.34	1.50
	≥560		0.85	1.00	1.10	1.13	1.15
160~450V	2.2~220		0.80	1.00	1.25	1.40	1.60
	≥270		0.90	1.00	1.10	1.13	1.15

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