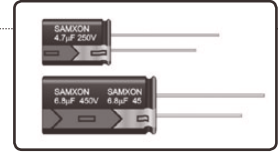


FEATURES

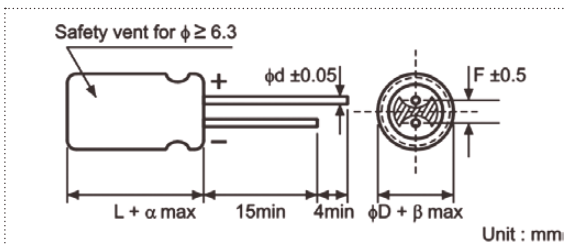
- High ripple current.
- For electronic ballast, power supply.



SPECIFICATIONS

Item	Performance Characteristics						
Operating Temperature Range	-40 to +105°C			-25 to +105°C			
Rated Working Voltage Range	160 to 400V			450V			
Nominal Capacitance Range	1 to 220µF						
Capacitance Tolerance	±20% at 120Hz, +20°C						
Leakage Current	I ≤ 0.02CV + 25 (µA) after 2 minutes application of rated working voltage at +20°C						
tan δ (120Hz, +20°C)	Working Voltage (V)	160	200	250	350	400	450
	tan δ (max.)	0.15	0.15	0.15	0.20	0.20	0.20
Surge Voltage	Working Voltage (V)	160	200	250	350	400	450
	Surge Voltage (V)	200	250	300	400	450	500
Low Temperature Characteristics	Impedance ratio max. at 120Hz						
	Working Voltage (V)	160	200	250	350	400	450
	Z-25°C / Z+20°C	3	3	3	5	5	6
High Temperature Loading	Test time	: 3,000 hours			Post test requirements at +20°C		
	Test temperature	: +105°C			Leakage current : ≤ Initial specified value		
	Test conditions	: Rated DC working voltage with rated ripple current			Cap. change : within ±20% of the initial measured value		
					tan δ : ≤ 200% of the initial specified value		
Shelf Life	At +105°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					
	tan δ	: ≤ 200% of the initial specified 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
F	3.5	3.5	5.0	5.0	7.5	7.5
φd	0.5	0.6	0.6	0.6	0.8	0.8
α		(L < 20) 1.5		(L ≥ 20) 2.0		
β		(D < 20) 0.5		(D ≥ 20) 1.0		

RIPPLE CURRENT MULTIPLIER

Frequency Coefficient

Coefficient Cap (µF)	120	1k	10k	100k
1~5.6	0.20	0.40	0.80	1.00
6.8~180	0.40	0.75	0.90	1.00
≥ 220	0.50	0.85	0.94	1.00

PART NUMBER SYSTEM (EXAMPLE : 200V 220µF)

1	23	456	7	89	10	1112	1314	
E	RR	227	M	2D	L	30	RR	
								Type (Radial Bulk)
								Case Length (30mm)
								Diameter (18mm)
								Voltage (200V)
								Tolerance (±20%)
								Capacitance (220µF)
								Series
								E-CAP

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
4.7	475					8 x 12	160	10 x 12.5	150
5.6	565							10 x 12.5	180
6.8	685			8 x 12	204	8 x 12 10 x 12.5	215 250	10 x 16	280
10	106	10 x 16	320	10 x 16	320	10 x 16	320	10 x 20	350
22	226	10 x 20	500	10 x 16 10 x 20	453 500	10 x 16 10 x 20	453 500	12.5 x 20	650
33	336	10 x 20	650	10 x 16 10 x 20	589 650	10 x 16 12.5 x 20	640 800	16 x 20	900
47	476	10 x 20	750	12.5 x 20	980	12.5 x 20	980	16 x 20	1080
68	686	12.5 x 20	1180	12.5 x 25 16 x 20	1300 1300	16 x 20	1300	18 x 25	1470
82	826			16 x 20	1380	16 x 20	1380	18 x 25	1530
100	107	12.5 x 25 16 x 20	1420 1420	16 x 20	1420	16 x 25	1530		
150	157	16 x 25	1890	16 x 25	1890	18 x 25	1940		
220	227	18 x 25	2370	18 x 30	2648				

Maximum Allowable Ripple Current (mArms) at 105°C 100kHz

Case Size Φ D x L (mm)

Voltage (Code)		400V (2G)		450V (2W)	
Cap. (µF)	Code	Case Size	Ripple Current	Case Size	Ripple Current
1	105	8 x 12	60		
1.5	155	8 x 12	90		
		10 x 12.5	100		
1.8	185	8 x 12	95		
		10 x 12.5	120		
2.2	225	8 x 12	95	8 x 12	105
		10 x 12.5	140		
3.3	335	8 x 12	130		
		10 x 12.5	150		
4.7	475	8 x 12	171	8 x 16	176
		10 x 16	220	10 x 20	220
5.6	565	10 x 16	250	10 x 20	250
				10 x 12.5	228
6.8	685	10 x 16	280	10 x 20	280
				10 x 20	397
10	106	10 x 16	317	10 x 20	350
		10 x 20	350	12.5 x 20	450
15	156	12.5 x 15	487	12.5 x 25	600
		12.5 x 20	550		
22	226	12.5 x 20	760	12.5 x 25	698
				16 x 20	730
33	336	12.5 x 25	861	16 x 20	891
		16 x 20	900	16 x 25	980
47	476	12.5 x 25	1027	16 x 25	1121
		16 x 20	1073	18 x 20	1093
68	686	16 x 25	1180	18 x 25	1200
		18 x 20	1180		
68	686	16 x 25	1374		
		16 x 30	1488		
		18 x 25	1470		

Maximum Allowable Ripple Current (mArms) at 105°C 100kHz

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.