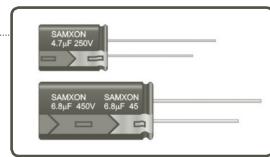


FEATURES

- ↗ 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 Test temperature : +105°C Test conditions : DC bias voltage plus the rated ripple current				Post test requirements at +20°C Leakage current : ≤Initial specified value 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

	<table border="1"> <thead> <tr> <th>ΦD</th><th>8 (L <20)</th><th>8 (L ≥20)</th><th>10</th><th>12.5</th><th>16</th><th>18</th></tr> </thead> <tbody> <tr> <td>F</td><td>3.5</td><td>3.5</td><td>5.0</td><td>5.0</td><td>7.5</td><td>7.5</td></tr> <tr> <td>Φd</td><td>0.5</td><td>0.6</td><td>0.6</td><td>0.6</td><td>0.8</td><td>0.8</td></tr> <tr> <td>α</td><td colspan="3">(L <20) 1.5</td><td colspan="3">(L ≥20) 2.0</td></tr> <tr> <td>β</td><td colspan="3">(D <20) 0.5</td><td colspan="3">(D ≥20) 1.0</td></tr> </tbody> </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		
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RIPPLE CURRENT MULTIPLIER**Frequency Coefficient**

Coefficient	Freq. (Hz)	120	1k	10k	100k
Cap (μF)					
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	2 3	4 5 6	7	8 9	10	11 12	13 14
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						
4.7	475					8 x 12	160	10 x 12.5	150
5.6	565							10 x 12.5	180
6.8	685					10 x 12.5	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 20	500	10 x 20	500	12.5 x 20	650
33	336	10 x 20	650	10 x 20	650	12.5 x 20	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	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	1420	16 x 20	1420	16 x 25	1530		
		16 x 20	1420						
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 (mAmps) at 105°C 100kHz

Case Size Ø 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		
		10 x 12.5	140		
3.3	335	10 x 12.5	150		
4.7	475	10 x 16	220	10 x 20	220
5.6	565	10 x 16	250	10 x 20	250
6.8	685	10 x 16	280	10 x 20	280
10	106	10 x 20	350	12.5 x 20	450
15	156	12.5 x 20	550	12.5 x 25	600
22	226	12.5 x 20	760	16 x 20	730
33	336	16 x 20	900	16 x 25	980
		16 x 25	1180	18 x 25	1200
47	476	18 x 20	1180		
68	686	18 x 25	1470		

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

Case Size Ø D x L (mm)