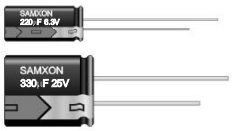
SAMXON®

+105°C, High Ripple Current(高紋波), Lowest Impedance(更低阻抗品)

FEATURES

1. Load life of 2000~5000 hours at 105°C.
2. Enabled high ripple current by a reduction of impedance at high frequency range.
3. Lowest impedance for personal computer and storage equipment.



SPECIFICATIONS

Item	Performance Characteristics
Operating Temperature Range	-40 to +105°C
Rated Working Voltage Range	6.3 to 25V
Nominal Capacitance Range	100 to 3900 μF
Capacitance Tolerance	±20% (120Hz, +20°C)
Leakage Current	I ≤ 0.01CV or 3(μA) after 2 minutes whichever is greater measured with rated working voltage at +20°C

tan δ (120Hz, +20°C)

Working Voltage (V)	6.3	10	16	25
tan δ (max.)	0.22	0.19	0.16	0.14

When nominal capacitance is over 1000μF, tan δ shall be added 0.02 to the listed value increase with of every 1000μF

Low Temperature Characteristics

Impedance ratio max. at 120Hz

Working Voltage (V)	6.3	10	16	25
Z-25°C / Z+20°C	2	2	2	2

High Temperature Loading

Test conditions

Duration :	φD	6.3	8	10	12.5
	Load life	2000h	3000h	4000h	5000h

Ambient temp. : +105°C

Applied voltage : Rated DC working voltage with max. ripple current

Post test requirements at +20°C

Leakage current : ≤ Initial specified value

Cap. change : within ±25% of initial measured value

tan δ : ≤ 200% of initial specified value

Shelf Life

Test conditions

Duration : 1000 hours

Ambient temp. : +105°C

Applied voltage : (None)

Post test requirements at +20°C

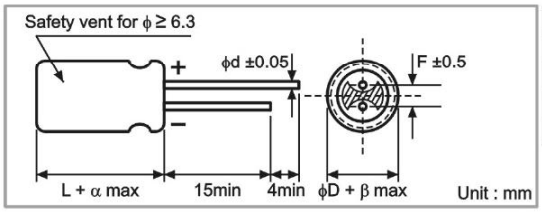
Leakage current : ≤ Initial specified value

Cap. change : within ±25% of initial measured value

tan δ : ≤ 200% of initial specified value

Others	JIS C - 5101 (IEC 60384)

CASE SIZE TABLE



φD	6.3	8(L < 20)	8(L≥20)	10	12.5
F	2.5	3.5		5.0	5.0
φd	0.5		0.6	0.6	
α	(L < 20) 1.5			(L ≥ 20) 2.0	
β	(D < 20) 0.5			(D ≥ 20) 1.0	

RIPPLE CURRENT MULTIPLIER

Frequency Coefficient

Cap(μF) \ Freq.(Hz)	120	1k	10k	100k
100 ~ 180	0.40	0.75	0.90	1.00
220 ~ 560	0.50	0.85	0.94	1.00
680 ~ 1800	0.60	0.87	0.95	1.00
2200 ~ 3900	0.75	0.90	0.95	1.00

PART NUMBER SYSTEM(EXAMPLE:25V220μF)

1 2 3	4 5 6	7	8 9	10	11 12	13 14
E	GK	227	M	1E	F	12	RR

- 13 14 RR — Type(Radial bulk)
- 11 12 12 — Case Length(12mm)
- 10 F — Diameter(8mm)
- 8 9 1E — Voltage(25V)
- 7 M — Tolerance(±20%)
- 4 5 6 227 — Capacitance(220μF)
- 2 3 GK — Series
- 1 E — E-CAP

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STANDARD RATINGS

Voltage (Code)		6.3V (0J)			10V (1A)			16V (1C)		
Cap.(μF)	Code	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current
120	127							6.3 x 11	0.130	405
150	157									
180	187									
220	227	6.3 x 11	0.130	405	6.3 x 11	0.130	405	8 x 12	0.072	760
330	337	6.3 x 11	0.130	405	8 x 12	0.072	760	8 x 12	0.072	760
470	477	8 x 12	0.072	760	8 x 12	0.072	760	8 x 16	0.056	995
								10 x 12.5	0.053	1030
560	567	8 x 12	0.072	760						
680	687				8 x 16	0.056	995	8 x 20	0.041	1250
					10 x12.5	0.053	1030	10 x 16	0.038	1430
820	827	8 x 16	0.056	995						
1000	108	10 x 12.5	0.053	1030	8 x 20	0.041	1250	10 x 20	0.023	1820
					10 x 16	0.038	1430			
1200	128	8 x 20	0.041	1250	10 x 20	0.023	1820	10 x 25	0.022	2150
		10 x 16	0.038	1430						
1500	158	10 x 20	0.023	1820	10 x 25	0.022	2150	12.5 x 20	0.021	2360
2200	228	10 x 25	0.022	2150	12.5 x 20	0.021	2360	12.5 x 25	0.018	2770
3300	338	12.5 x 20	0.021	2360	**12.5 x 25**	**0.018**	**2770**			
3900	398	12.5 x 25	0.018	2770						

Maximum Allowable Ripple Current (mA rms) at 105°C **100kHz**
Maximum Impedance (Ω) at 20°C **100kHz**

Case Size ϕD x L(mm)

Voltage (Code)		25V (1E)								
Cap.(μF)	Code	Case Size	Impedance	Ripple Current						
100	107	6.3 x 11	0.130	405						
220	227	8 x 12	0.072	760						
330	337	8 x 16	0.056	995						
		10 x 12.5	0.053	1030						
470	477	8 x 20	0.041	1250						
		10 x 16	0.038	1430						
680	687	10 x 20	0.023	1820						
820	827	10 x 25	0.022	2150						
1000	108	12.5 x 20	0.021	2360						
1500	158	12.5 x 25	0.018	2770						

Maximum Allowable Ripple Current (mA rms) at 105°C **100kHz**
Maximum Impedance (Ω) at 20°C **100kHz**

Case Size ϕD x L(mm)