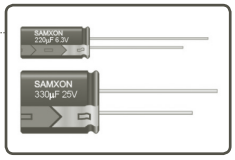
SAMXON®

Aluminum Electrolytic Capacitors

+105˚C, Higher Ripple Current (較高紋波), Lower Impedance (較低阻抗品)

FEATURES

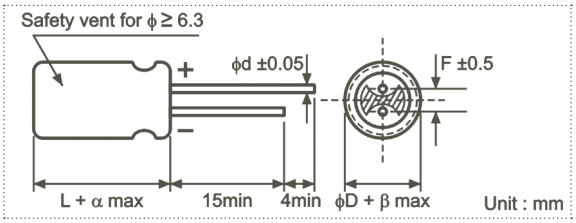


- Load life of 2,000~5,000 hours at 105˚C.
- Enabled high ripple current by a reduction of impedance at high frequency range.
- Lowest impedance for personal computer and storage equipment.

SPECIFICATIONS

Item	Performance Characteristics
Operating Temperature Range	-40 to +105˚C
Rated Working Voltage Range	6.3 to 25V
Nominal Capacitance Range	100 to 3900µF
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 tan δ (max.): 0.22 / 0.19 / 0.16 / 0.14 For capacitance value >1000µF, add 0.02 per another 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 time : ΦD 6.3 / 8 / 10 / 12.5; Load life 2,000h / 3,000h / 4,000h / 5,000h Test temperature : +105˚C Test conditions : Rated DC working voltage with rated ripple current Post test requirements at +20˚C Leakage current : ≤Initial specified value Cap. change : within ±25˚% 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 ±25˚% 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	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

Coefficient / Freq. (Hz) / Cap (µF)	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 : 25V 220µF)

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

- RR — Type (Radial Bulk)
- 12 — Case Length (12mm)
- F — Diameter (8mm)
- 1E — Voltage (25V)
- M — Tolerance (±20%)
- 227 — Capacitance (220µF)
- GK — Series
- E — E-CAP

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
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 x 12.5	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	2270
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 (mArms) 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 (mArms) at 105˚C 100kHz
Maximum Impedance (Ω) at 20˚C 100kHz
Case Size ΦD x L (mm)