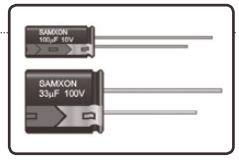
-55˚C~+105˚C, Wide Temperature (寬溫度), High Ripple Current (高紋波), Low Impedance (低阻抗品)

FEATURES

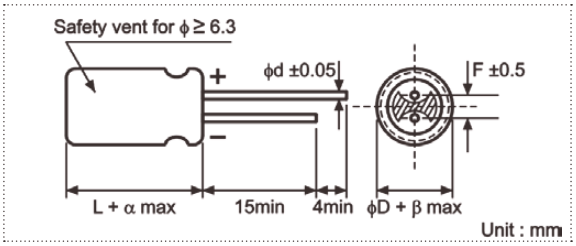


- Load life of 1,000~4,000 hours at 105˚C
- Enabled high ripple current by a reduction of impedance at high frequency range.

SPECIFICATIONS

Item	Performance Characteristics
Operating Temperature Range	-55 to +105˚C
Rated Working Voltage Range	6.3 to 100V
Nominal Capacitance Range	22 to 4700µF
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.): 0.22 / 0.19 / 0.16 / 0.14 / 0.12 / 0.10 / 0.09 / 0.08 For capacitance value >1000µF, add 0.02 per another 1000µF
Low Temperature Characteristics	Impedance ratio max. at 120 Hz Working Voltage (V): 6.3 / 10 / 16 / 25 / 35 / 50 / 63 / 100 Z-25˚C / Z+20˚C: 4 / 3 / 2 / 2 / 2 / 2 / 2 / 2 Z-40˚C / Z+20˚C: 8 / 6 / 4 / 3 / 3 / 3 / 3 / 3
High Temperature Loading	Test time : ΦD 6.3 / 8 / 10 / 12.5; Load life 1,000h / 2,000h / 3,000h / 4,000h 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 ±20% of the initial measured value tan δ : ≤200% of the initial specified value
Industrial Standard	JIS C - 5101-4 (IEC 60384-4) EIAJ RC - 2372

CASE SIZE TABLE



ΦD	6.3	8(L <20)	8(L <20)	10	12.5
F	2.5	3.5	3.5	5.0	5.0
Φd	0.5	0.5	0.6	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)	60	120	1k	10k	100k
22~330	0.55	0.75	0.85	0.90	1.00
390~1000	0.70	0.75	0.90	0.95	1.00
1200~2200	0.75	0.80	0.90	0.95	1.00
2700~4700	0.80	0.85	0.95	1.00	1.00

PART NUMBER SYSTEM (EXAMPLE : 16V 330µF)

1	2 3	4 5 6	7	8 9	10	11 12	13 14
E	RF	337	M	1C	F	12	RR

- RR — Type (Radial Bulk)
- 12 — Case Length (12mm)
- F — Diameter (8mm)
- 1C — Voltage (16V)
- M — Tolerance (±20%)
- 337 — Capacitance (330µF)
- RF — 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
100	107							6.3 x 11	0.220	340
120	127							6.3 x 11	0.220	340
150	157				6.3 x 11	0.220	340	6.3 x 11	0.220	340
180	187	6.3 x 11	0.220	340	6.3 x 11	0.220	340	6.3 x 11	0.220	340
220	227	6.3 x 11	0.220	340	6.3 x 11	0.220	340	8 x 12	0.130	640
270	277	6.3 x 11	0.220	340	6.3 x 11	0.220	340	8 x 12	0.130	640
330	337	6.3 x 11	0.220	340	8 x 12	0.130	640	8 x 12	0.130	640
390	397	8 x 12	0.130	640	8 x 12	0.130	640	8 x 12	0.130	640
470	477	8 x 12	0.130	640	8 x 12	0.130	640	8 x 12	0.130	640
								10 x 12.5	0.080	865
560	567	8 x 12	0.130	640	8 x 12	0.130	640	10 x 12.5	0.080	865
680	687	8 x 12	0.130	640	8 x 12	0.130	640	8 x 16	0.087	840
								10 x 12.5	0.080	865
820	827	8 x 12	0.130	640	10 x 12.5	0.080	865	10 x 16	0.060	1210
		10 x 12.5	0.080	865						
1000	108	8 x 12	0.130	640	8 x 16	0.087	840	10 x 16	0.060	1210
		10 x 12.5	0.080	865	10 x 16	0.060	1210			
1200	128	8 x 16	0.087	840	10 x 20	0.046	1400	10 x 20	0.046	1400
		10 x 12.5	0.080	865						
1500	158	10 x 16	0.060	1210	10 x 20	0.046	1400	10 x 20	0.046	1400
1800	188	10 x 20	0.046	1400	10 x 20	0.046	1400	12.5 x 20	0.035	1900
2200	228	10 x 20	0.046	1400	10 x 20	0.046	1400	12.5 x 20	0.035	1900
2700	278	10 x 25	0.042	1650	12.5 x 20	0.035	1900	12.5 x 25	0.030	2124
		12.5 x 20	0.035	1900						
3300	338	10 x 25	0.042	1650	12.5 x 25	0.030	2124			
		12.5 x 20	0.035	1900						
3900	398	12.5 x 20	0.035	1900						
4700	478	12.5 x 25	0.030	2124						

Maximum Allowable Ripple Current (mArms) at 105˚C 100kHz
Maximum Impedance (Ω) at 20˚C 100kHz

Case Size ΦD x L (mm)

-55˚C~+105˚C, Wide Temperature (寬溫度), High Ripple Current (高紋波), Low Impedance (低阻抗品)

STANDARD RATINGS

Voltage (Code)		25V (1E)			35V (1V)			50V (1H)		
Cap. (μF)	Code	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current
33	336							6.3 x 11	0.300	295
39	396							6.3 x 11	0.300	295
47	476				6.3 x 11	0.220	340	6.3 x 11	0.300	295
56	566				6.3 x 11	0.220	340	8 x 12	0.170	555
68	686				6.3 x 11	0.220	340	8 x 12	0.170	555
82	826	6.3 x 11	0.220	340	8 x 12	0.130	640	8 x 12	0.170	555
100	107	6.3 x 11	0.220	340	8 x 12	0.130	640	10 x 12.5	0.120	760
120	127	8 x 12	0.130	640	8 x 12	0.130	640	8 x 16	0.120	730
								10 x 12.5	0.120	760
150	157	8 x 12	0.130	640	8 x 12	0.130	640	10 x 16	0.084	1050
180	187	8 x 12	0.130	640	10 x 12.5	0.080	865	8 x 20	0.091	910
								10 x 16	0.084	1050
220	227	8 x 12	0.130	640	8 x 16	0.087	840	10 x 16	0.084	1050
					10 x 12.5	0.080	865			
270	277	10 x 12.5	0.080	865	10 x 16	0.060	1210	10 x 25	0.055	1440
330	337	8 x 12	0.130	640	8 x 20	0.069	1050	12.5 x 20	0.045	1660
		10 x 12.5	0.080	865	10 x 16	0.060	1210			
390	397	10 x 12.5	0.080	865	10 x 16	0.060	1210	12.5 x 20	0.045	1660
470	477	8 x 16	0.087	840	10 x 16	0.060	1210	12.5 x 25	0.034	1950
		10 x 12.5	0.080	865						
560	567	10 x 16	0.060	1210	10 x 20	0.046	1400	12.5 x 25	0.034	1950
680	687	10 x 16	0.060	1210	10 x 20	0.046	1400			
820	827	10 x 20	0.046	1400	12.5 x 20	0.035	1900			
1000	108	10 x 20	0.046	1400	12.5 x 25	0.030	2124			
1200	128	10 x 20	0.046	1400						
1500	158	10 x 25	0.042	1650						
		12.5 x 20	0.035	1900						
1800	188	12.5 x 25	0.030	2124						
2200	228	12.5 x 25	0.030	2124						

Maximum Allowable Ripple Current (mArms) at 105˚C 100kHz
Maximum Impedance (Ω) at 20˚C 100kHz

Case Size ΦD x L (mm)

SAMXON®
Aluminum Electrolytic Capacitors

-55˚C~+105˚C, Wide Temperature (寬溫度), High Ripple Current (高紋波), Low Impedance (低阻抗品)

STANDARD RATINGS

Voltage (Code)		63V (1J)			100V (2A)		
Cap. (μF)	Code	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current
22	226	6.3 x 11	0.960	115			
33	336	6.3 x 11	0.960	115			
39	396	8 x 12	0.504	232	8 x 16	0.360	300
47	476	8 x 12	0.504	232	10 x 12.5	0.344	314
56	566	8 x 12	0.504	232	8 x 20	0.264	362
68	686	8 x 12	0.504	232	10 x 16	0.248	357
82	826	10 x 12.5	0.344	314	10 x 20	0.168	466
100	107	8 x 16	0.360	300	10 x 20	0.168	466
		10 x 12.5	0.344	314			
120	127	10 x 16	0.248	357	12.5 x 20	0.128	690
150	157	8 x 20	0.264	362			
180	187	10 x 20	0.168	466	12.5 x 25	0.096	922
220	227	10 x 20	0.168	466	12.5 x 25	0.096	922
270	277	12.5 x 20	0.128	690			
330	337	12.5 x 20	0.128	690			
390	397	12.5 x 25	0.096	922			

Maximum Allowable Ripple Current (mArms) at 105˚C 100kHz
Maximum Impedance (Ω) at 20˚C 100kHz

Case Size ΦD x L (mm)