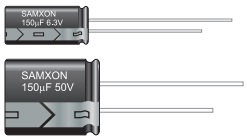
SAMXON®

+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 50V
Nominal Capacitance Range	22 to 6800µF
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

Dissipation Factor tan δ (120Hz, +20°C)

Working Voltage (V)	6.3	10	16	25	35	50
tan δ (max.)	0.22	0.19	0.16	0.14	0.12	0.10

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	35	50
Z-25°C / Z+20°C	2	2	2	2	2	2
Z-40°C / Z+20°C	3	3	3	3	3	3

High Temperature Loading

Test conditions

Duration :

φD	5 ~ 6.3	8 ~ 10	12.5 ~
Load life	2000h	3000h	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

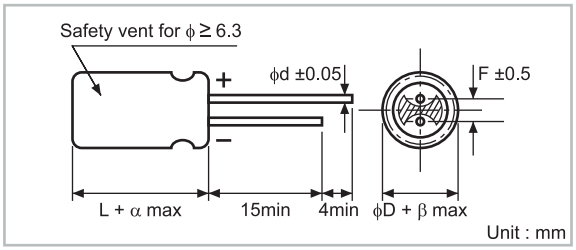
Leakage current : ≤ Initial specified value

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

tan δ : ≤ 200% of initial specified value

Others	JIS C - 5141 EIJ RC - 2372

CASE SIZE TABLE



φD	5	6.3	8(L < 20)	8(L ≥20)	10	12.5	16	18
F	2.0	2.5	3.5		5.0	5.0	7.5	
φd	0.5			0.6	0.6		0.8	
α	(L < 20) 1.5				(L ≥ 20) 2.0			
β	(D < 20) 0.5				(D ≥ 20) 1.0			

RIPPLE CURRENT MULTIPLIER

Temperature Coefficient

Temperature(°C)	~ 55	60	70	85	105
Factor	2.23	2.17	2.00	1.75	1.00

Frequency Coefficient

Cap(µF) \ Freq.(Hz)	120	1K	10K	100K
20 ~ 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
4700~	0.85	0.95	0.98	1.00

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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
56	566							5 x 11	0.300	250
100	107				5 x 11	0.300	250			
120	127							6.3 x 11	0.130	405
150	157	5 x 11	0.300	250						
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
2700	278							12.5 x 30	0.016	3290
								16 x 20	0.018	3140
3300	338	12.5 x 20	0.021	2360	12.5 x 25	0.018	2770	12.5 x 35	0.015	3400
3900	398	12.5 x 25	0.018	2770	12.5 x 30	0.016	3290	16 x 25	0.016	3460
					16 x 20	0.018	3140			
4700	478	12.5 x 30	0.016	3290	12.5 x 35	0.015	3400			
5600	568	12.5 x 35	0.015	3400	16 x 25	0.016	3460			
		16 x 20	0.018	3140						
6800	688	16 x 25	0.016	3460						

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)			35V (1V)			50V (1H)		
Cap.(μF)	Code	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current
22	226							5 x 11	0.340	238
33	336				5 x 11	0.300	250	6.3 x 11	0.140	385
47	476	5 x 11	0.300	250	6.3 x 11	0.130	405	6.3 x 11	0.140	385
56	566				6.3 x 11	0.130	405	6.3 x 11	0.140	385
100	107	6.3 x 11	0.130	405	8 x 12	0.072	760	8 x 12	0.074	724
120	127							8 x 16	0.061	950
150	157				8 x 12	0.072	760	10 x 12.5	0.061	979
180	187							8 x 20	0.046	1190
220	227	8 x 12	0.072	760	8 x 16	0.056	995	10 x 16	0.042	1370
					10 x 12.5	0.053	1030			
270	227				8 x 20	0.041	1250	10 x 20	0.030	1580
330	337	8 x 16	0.056	995	10 x 16	0.038	1430	10 x 25	0.028	1870
		10 x 12.5	0.053	1030						
470	477	8 x 20	0.041	1250	10 x 20	0.023	1820	12.5 x 20	0.027	2050
		10 x 16	0.038	1430						
560	567				10 x 25	0.022	2150	12.5 x 25	0.023	2410
680	687	10 x 20	0.023	1820	12.5 x 20	0.021	2360	12.5 x 30	0.021	2860
820	827	10 x 25	0.022	2150				12.5 x 35	0.019	2960
								16 x 20	0.023	2730
1000	108	12.5 x 20	0.021	2360	12.5 x 25	0.018	2770	16 x 25	0.021	3010
1200	128				12.5 x 30	0.016	3290			
					16 x 20	0.018	3140			
1500	158	12.5 x 25	0.018	2770	12.5 x 35	0.015	3400			
1800	188	12.5 x 30	0.016	3290	16 x 25	0.016	3460			
		16 x 20	0.018	3140						
2200	228	12.5 x 35	0.015	3400						
		16 x 30	0.015	3633						
2700	278	16 x 25	0.016	3460						

Maximum Allowable Ripple Current (mA rms) at 105°C 100KHz

Maximum Impedance (Ω) at 20°C 100KHz

Case Size ϕD x L(mm)