

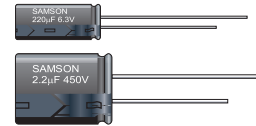
SAMSON

SKG Series

-55°C~ +105°C, Standard(標準品)

FEATURES

1. For general purpose, -55°C to +105°C, 1000 to 2000 hours.
2. Wide CV value range.
3. Safety vent construction products.



SPECIFICATIONS

Item	Performance Characteristics								
Operating Temperature Range	-55 to +105°C	-25 to +105°C							
Rated Working Voltage Range	6.3 to 100V	160 to 450V							
Nominal Capacitance Range	0.1 to 22000µF	1.0 to 330µF							
Capacitance Tolerance	±20% (120Hz, +20°C)								
Leakage Current	$I \leq 0.01CV$ or $3(\mu A)$ whichever is greater measured after 1 minute application of rated working voltage at +20°C	$I \leq 0.06CV + 10(\mu A)$ after 2 minutes application of rated working voltage at +20°C							
Dissipation Factor tan δ (120Hz, +20°C)	Working Voltage (V)	6.3	10	16	25	35	50	63	100
	tan δ (max.)	0.28	0.24	0.20	0.16	0.14	0.12	0.10	0.08
	Working Voltage (V)	160	200	250	350	400	450		
	tan δ (max.)	0.15	0.15	0.15	0.20	0.24	0.24		
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	35	50	63	100
	Z-25°C / Z+20°C	4	3	2	2	2	2	2	2
	Z-40°C / Z+20°C	10	8	6	4	3	3	3	3
	Working Voltage (V)	160	200	250	350	400	450		
Z-25°C / Z+20°C	2	2	2	2	2	2			
For capacitance value > 1000µF, Add 0.5 per another 1000µF for Z-25°C / Z+20°C Add 1.0 per another 1000µF for Z-40°C / Z+20°C									
High Temperature Loading	Test conditions		Post test requirements at +20°C						
	Duration :	WV	6.3 to 100	160 to 450	Leakage current : \leq Initial specified value				
		ϕD	5 to 8	10 to 18	Cap. change : $\leq \pm 20\%$ of initial measured value				
		Load life	1000h	2000h	2000h	tan δ : $\leq 200\%$ of initial specified value			
Ambient temp. : +105°C		Applied voltage : Rated DC working voltage with max. ripple current							
Shelf Life	Test conditions		Post test requirements at +20°C						
	Duration	: 1000 hours		Same limits for high temperature loading.					
	Ambient temp.	: +105°C							
	Applied voltage	: (None)							
Others	JIS C - 5141 JIS C - 5102								

CASE SIZE TABLE

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

RIPPLE CURRENT MULTIPLIER

Temperature Coefficient					Frequency Coefficient										
Temperature(°C)	~ 55	60	70	85	105	Rated Voltage(V)	Cap(µF)	Freq.(Hz)	60	120	1K	10K	100K		
Factor	2.23	2.17	2.00	1.75	1.00	6.3 ~ 100	0.1 ~ 33	47 ~ 470	0.75	1.00	1.55	1.80	2.00		
									1000 ~ 22000	0.85	1.00	1.10	1.15	1.15	
									160 ~ 450	1 ~ 330	0.80	1.00	1.35	1.50	1.50

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DIMENSIONS									
Voltage (Code)		6.3V		10V		16V		25V	
Cap.(μF)	Code	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current
0.1	104								
0.22	224								
0.33	334								
0.47	474								
1	105								
2.2	225								
3.3	335								
4.7	475								
10	106								
22	226								
33	336								
47	476							5 x 11	91
100	107					5 x 11	110	6.3 x 11	130
220	227	5 x 11	140			6.3 x 11	180	8 x 12	230
330	337			6.3 x 11	200	8 x 12	260	8 x 12	310
470	477	6.3 x 11	230	8 x 12	250	8 x 12	310	10 x 12.5	380
1000	108	8 x 12	380	10 x 12.5	460	10 x 16	560	10 x 20	680
2200	228	10 x 16	710	10 x 20	760	12.5 x 20	920	12.5 x 25	1090
3300	338	10 x 20	840	12.5 x 20	1000	12.5 x 25	1170	16 x 25	1400
4700	478	12.5 x 20	1090	12.5 x 25	1260	16 x 25	1480	16 x 30	1750
6800	688	12.5 x 25	1350	16 x 25	1570	16 x 30	1780	18 x 35	2040
10000	109	16 x 25	1650	16 x 30	1890	18 x 35	2060		
15000	159	16 x 30	2010	18 x 35	2180				
22000	229	18 x 35	2350						

Maximum Allowable Ripple Current (mA rms) at 105°C 120Hz

Case Size φD x L(mm)

Voltage (Code)		35V		50V		63V		100V	
Cap.(μF)	Code	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current
0.1	104			5 x 11	1.1				
0.22	224			5 x 11	2.3				
0.33	334			5 x 11	3.5				
0.47	474			5 x 11	5.0			5 x 11	9
1	105			5 x 11	10			5 x 11	14
2.2	225			5 x 11	18			5 x 11	21
3.3	335			5 x 11	22			5 x 11	31
4.7	475			5 x 11	26			5 x 11	38
10	106			5 x 11	39	5 x 11	46	6.3 x 11	54
22	226			5 x 11	65	5 x 11	71	6.3 x 11	93
33	336			5 x 11	90	6.3 x 11	100	8 x 12	130
47	476	5 x 11	90	6.3 x 11	110	6.3 x 11	120	10 x 12.5	165
100	107	6.3 x 11	150	8 x 12	180	10 x 12.5	215	10 x 20	265
220	227	8 x 12	270	10 x 12.5	300	10 x 16	335	12.5 x 25	440
330	337	10 x 12.5	350	10 x 16	410	10 x 20	510	16 x 25	540
470	477	10 x 16	460	10 x 20	530	12.5 x 20	640	16 x 25	715
1000	108	12.5 x 20	810	12.5 x 25	950	16 x 25	930	18 x 35	985
2200	228	16 x 25	1260	16 x 30	1470	18 x 35	1610		
3300	338	16 x 30	1610	18 x 35	1770				
4700	478	18 x 35	1910						
6800	688								
10000	109								
15000	159								
22000	229								

Maximum Allowable Ripple Current (mA rms) at 105°C 120Hz

Case Size φD x L(mm)

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DIMENSIONS									
Voltage (Code)		160V		200V		250V		350V	
Cap.(μ F)	Code	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current
0.1	104								
0.22	224								
0.33	334								
0.47	474								
1	105	6.3 x 11	17	6.3 x 11	17	6.3 x 11	17	6.3 x 11	18
2.2	225	6.3 x 11	25	6.3 x 11	25	6.3 x 11	29	8 x 12	31
3.3	335	6.3 x 11	36	6.3 x 11	36	8 x 12	42	10 x 12.5	38
4.7	475	6.3 x 11	43	8 x 12	50	8 x 12	50	10 x 16	50
10	106	10 x 12.5	70	10 x 16	80	10 x 16	88	10 x 20	82
22	226	10 x 20	130	10 x 20	140	12.5 x 20	155	12.5 x 20	130
33	336	10 x 20	180	12.5 x 20	190	12.5 x 20	190	16 x 25	195
47	476	12.5 x 20	220	12.5 x 20	220	12.5 x 25	230	16 x 25	230
100	107	16 x 25	335	16 x 25	335	16 x 30	365	18 x 30	375
220	227	16 x 30	540	18 x 30	575				
330	337	18 x 30	705						
470	477								
1000	108								
2200	228								
3300	338								
4700	478								
6800	688								
10000	109								
15000	159								
22000	229								

Maximum Allowable Ripple Current (mA rms) at 105°C 120Hz

Case Size ϕ D x L(mm)

Voltage (Code)		400V		450V					
Cap.(μ F)	Code	Case Size	Ripple Current	Case Size	Ripple Current				
0.1	104								
0.22	224								
0.33	334								
0.47	474								
1	105	6.3 x 11	18	8 x 12	18				
2.2	225	8 x 12	30	10 x 12.5	29				
3.3	335	10 x 12.5	40	10 x 16	41				
4.7	475	10 x 16	50	10 x 20	49				
10	106	10 x 20	80	12.5 x 20	75				
22	226	12.5 x 25	145	16 x 25	115				
33	336	16 x 25	195	16 x 30	155				
47	476	16 x 30	250						
100	107								
220	227								
330	337								
470	477								
1000	108								
2200	228								
3300	338								
4700	478								
6800	688								
10000	109								
15000	159								
22000	229								

Maximum Allowable Ripple Current (mA rms) at 105°C 120Hz

Case Size ϕ D x L(mm)