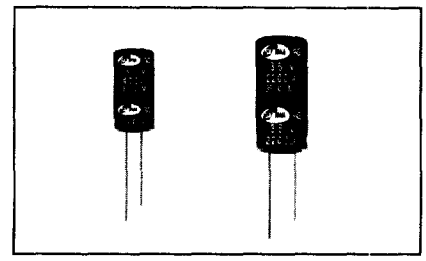
SG Standard, For General Purposes Series

- Standard series for general purposes
- High performance and high reliability
- Load life of 2000 hours at 85°C

Solvent Proof
WV≦200V



Item	Characteristics
Operating temperature range	WV: 6.3~350 / 400, 450 — Temperature range: -40 ~ +85°C / -25 ~ +85°C
Leakage current max.	WV≦100: I = 0.01CV or 3μA whichever is greater (after 2 min); I = 0.03CV or 4μA whichever is greater (after 1 min). WV>100: I = 0.02CV+15μA (after 5 min)
Capacitance tolerance	±20% at 120Hz, 20°C
Dissipation factor max. (at 120Hz, 20°C)	Capacitance > 1000μF : tanδ increases by 0.02 for each 1000μF from below value.

WV	6.3	10	16	25	35,40	50	63,80	100	160~250	350~450
tanδ	0.24	0.20	0.16	0.14	0.12	0.10	0.08	0.07	0.15	0.20

Low temperature characteristics (Impedance ratio at 120Hz)

WV	6.3	10	16	25	35~100	160	200~350	400,450
Z-25°C/Z+20°C	4	3	2	2	2	4	8	16
Z-40°C/Z+20°C	10	8	6	4	3	8	12	—

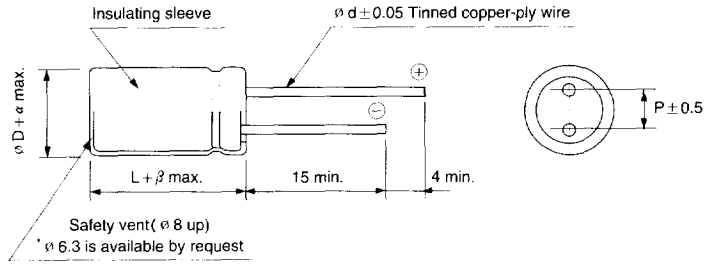
Load life (after application of the rated voltage for 2000 hours at 85°C)

		WV≦16	WV>16
Leakage current	Less than specified value		
Capacitance change	ø D≦6.3	±20%	±20%
	ø D>6.3	±20%	±15%
tanδ	Less than 150% of specified value		

Shelf life (at 85°C)	After 1000 hours no load test, leakage current, capacitance and tanδ are same as load life value.

● DRAWING

Unit : mm



ø D	5	6.3	8	10	12.5	16	18	22	25.4
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5	10.0	12.5
ø d	0.5	0.5	0.6	0.6	0.6	0.8	0.8	1.0	1.0
β	1.0			1.5				2.0	
α	0.5							1.0	

● PERMISSIBLE RIPPLE CURRENT MULTIPLIERS

μF \ Frequency	50Hz	120Hz	300Hz	1kHz	10kHz~
~ 47	0.75	1	1.35	1.55	2.0
68 ~ 680	0.80	1	1.25	1.34	1.5
1000 ~	0.85	1	1.10	1.13	1.15

SG series

● DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

μF \ WV	6.3	10	16	25	35	40	50	63	80	100	160	200	250	350	400	450
0.1							5×11 7.2	5×11 7.8	5×11 7.8	5×11 7.8						
0.15							5×11 8.9	5×11 9.6	5×11 9.6	5×11 9.6						
0.22							5×11 11	5×11 12	5×11 12	5×11 12						
0.33							5×11 13	5×11 14	5×11 14	5×11 14						
0.47							5×11 16	5×11 17	5×11 17	5×11 17	6.3×11 17	6.3×11 17	6.3×11 17	8×11.5 20	8×11.5 20	
0.68							5×11 19	5×11 20	5×11 20	5×11 20	6.3×11 20	6.3×11 20	6.3×11 20	8×11.5 24	8×11.5 24	
1.0							5×11 23	5×11 25	5×11 25	5×11 25	6.3×11 25	6.3×11 25	6.3×11 25	8×11.5 29	8×11.5 29	8×11.5 26
1.5							5×11 28	5×11 30	5×11 30	5×11 30	6.3×11 30	6.3×11 30	8×11.5 36	8×11.5 36	10×12.5 41	10×12.5 37
2.2							5×11 34	5×11 37	5×11 37	5×11 37	6.3×11 37	6.3×11 37	8×11.5 43	10×12.5 50	10×12.5 50	10×12.5 45
3.3							5×11 42	5×11 45	5×11 45	5×11 45	8×11.5 53	8×11.5 53	10×12.5 61	10×12.5 61	10×12.5 61	10×16 60
4.7							5×11 50	5×11 54	5×11 54	5×11 54	8×11.5 63	10×12.5 73	10×12.5 73	10×12.5 73	10×16 80	10×20 78
6.8							5×11 60	5×11 65	5×11 65	5×11 65	10×12.5 88	10×12.5 88	10×12.5 88	10×16 96	10×20 105	10×20 94
10							5×11 72	5×11 78	5×11 78	6.3×11 90	10×12.5 107	10×16 117	10×16 117	10×20 128	12.5×20 150	12.5×20 134
15							5×11 89	5×11 96	6.3×11 110	6.3×11 110	10×16 143	10×20 156	10×20 156	12.5×20 183	12.5×20 183	12.5×25 179
22						5×11 101	5×11 108	6.3×11 133	6.3×11 133	8×11.5 157	10×20 189	10×20 189	12.5×20 222	12.5×25 242	12.5×25 242	16×25 240
33					5×11 123	6.3×11 142	6.3×11 151	6.3×11 163	8×11.5 193	10×12.5 224	12.5×20 272	12.5×20 272	12.5×25 297	12.5×25 297	16×25 329	16×31.5 322
47				5×11 131	6.3×11 169	6.3×11 169	6.3×11 181	8×11.5 230	10×12.5 267	10×16 293	12.5×20 325	12.5×25 354	16×25 393	16×25 393	16×35.5 451	16×35.5 403
68			5×11 144	6.3×11 182	6.3×11 203	8×11.5 240	8×11.5 256	10×12.5 321	10×12.5 321	10×16 352	12.5×25 426	16×25 472	16×25 472	16×35.5 542	18×35.5 582	18×40 546
100	5×11 143	5×11 157	6.3×11 201	6.3×11 220	8×11.5 291	8×11.5 291	8×11.5 311	10×12.5 390	10×16 427	10×20 466	16×25 573	16×25 573	16×31.5 627	18×40 741	22×40 815	22×40 729
150	6.3×11 201	6.3×11 220	6.3×11 246	8×11.5 318	10×12.5 414	10×12.5 414	10×16 484	10×16 523	10×20 571	12.5×20 670	16×31.5 768	16×35.5 806	18×35.5 864	22×40 998	25.4×40 1090	25.4×50 1064
220	6.3×11 244	6.3×11 267	8×11.5 352	8×11.5 386	10×12.5 501	10×16 549	10×16 586	10×20 691	12.5×20 811	12.5×25 885	18×35.5 1047	18×40 1098	22×40 1209	25.4×50 1440		
330	6.3×11 298	8×11.5 386	8×11.5 431	10×12.5 549	10×16 672	10×20 733	10×20 784	12.5×20 994	12.5×25 1083	16×25 1202	22×40 1481	22×40 1481	25.4×40 1617			
470	8×11.5 420	8×11.5 460	10×12.5 598	10×16 717	10×20 875	12.5×20 1027	12.5×20 1098	12.5×25 1293	16×25 1434	16×31.5 1569	25.4×40 1930	25.4×40 1930	25.4×50 2105			
680	10×12.5 587	10×12.5 643	10×20 859	10×16 787	12.5×20 1235	12.5×20 1235	12.5×25 1440	16×25 1725	16×31.5 1888	18×35.5 2125	25.4×50 2532					
1000	10×12.5 712	10×16 854	10×20 1042	12.5×20 1340	12.5×25 1633	16×25 1812	16×25 1937	16×31.5 2289	18×35.5 2577	22×40 2976						
1500	10×20 988	12.5×20 1259	12.5×20 1387	12.5×25 1633	16×25 1985	16×31.5 2172	16×35.5 2402	18×35.5 2733	22×40 3157	25.4×40 3448						
2200	12.5×20 1340	12.5×20 1442	12.5×25 1713	16×25 2032	16×31.5 2401	16×35.5 2519	18×35.5 2823	22×40 3420	25.4×40 3735							
3300	12.5×20 1571	12.5×25 1831	16×25 2194	16×31.5 2546	18×35.5 3065	18×35.5 3065	22×40 3673	25.4×40 4176								
4700	16×25 2179	16×25 2317	16×31.5 2718	18×35.5 3225	22×40 3951	22×40 3951	25.4×40 4458									
6800	16×25 2440	16×31.5 2814	18×35.5 3360	22×40 4053	25.4×40 4643	25.4×50 5065	◄ Case size ⌀D×L (mm) ◄ Ripple current (mA rms) at 85°C, 120Hz									
10000	16×31.5 2955	18×35.5 3475	22×40 4209	25.4×40 4759												
15000	18×35.5 3605	22×40 4306	25.4×40 4877													
22000	22×40 4415	25.4×40 4947														

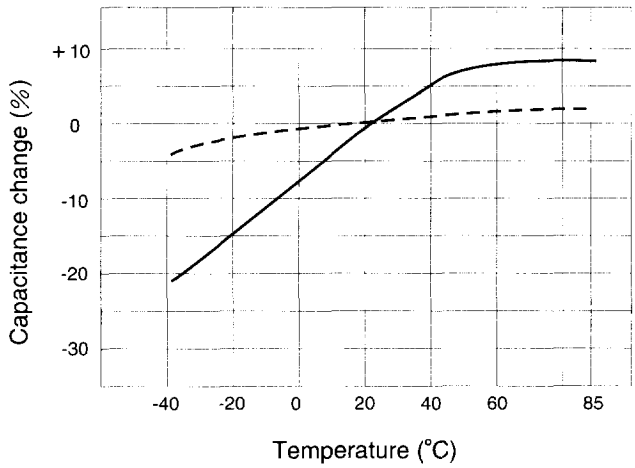
SG series

TYPICAL PERFORMANCE

— 10V 220μF
····· 63V 1000μF

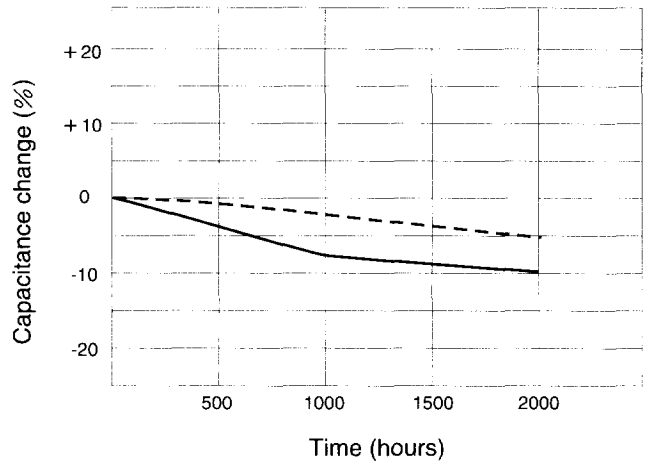
● TEMPERATURE CHARACTERISTICS

Capacitance change vs. temperature

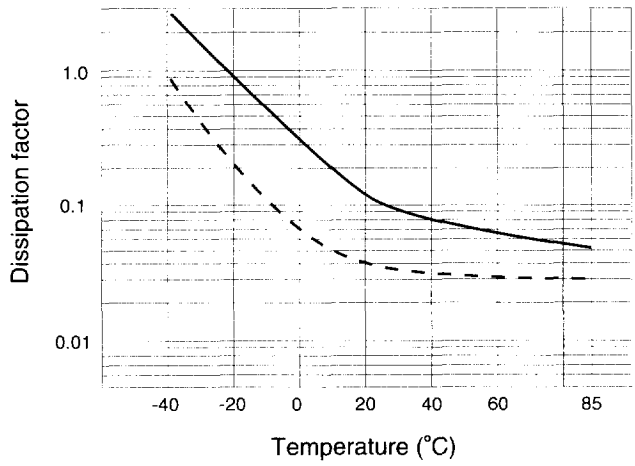


● LOAD LIFE (at +85°C)

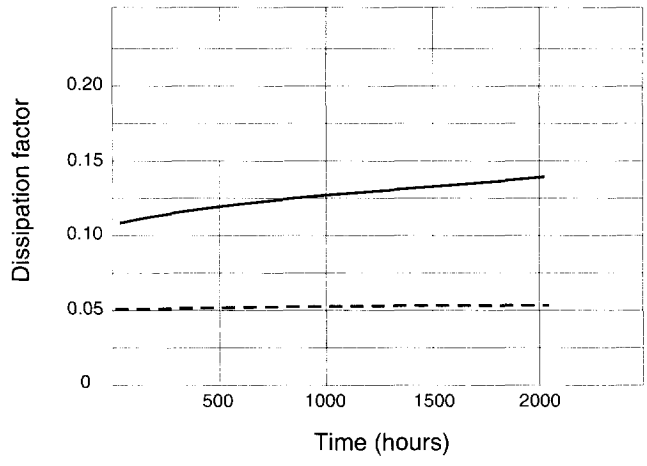
Capacitance change vs. time



Dissipation factor vs. temperature

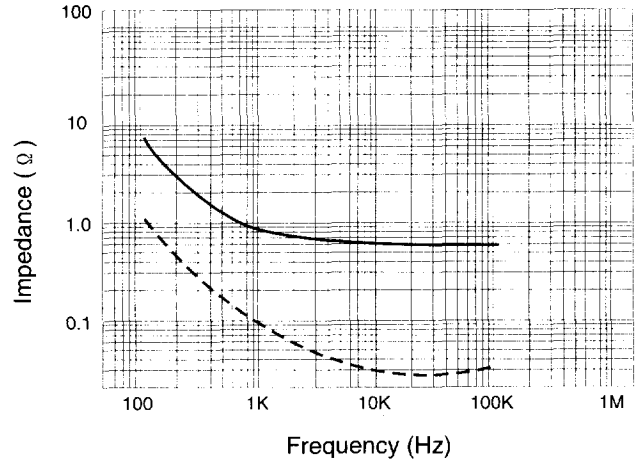


Dissipation factor vs. time



● FREQUENCY CHARACTERISTICS

Impedance vs. frequency



Leakage current vs. time