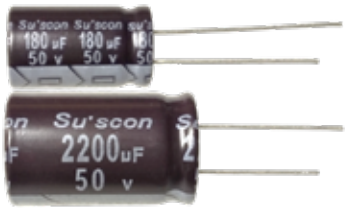
HG series

- High ripple current. Low impedance at High frequency range.
- 105℃ Long life : 4000 hours~10000 hours.
- RoHS Compliance
- 高紋波電流.高頻低阻抗。
- 105℃ 4000小時~10000小時長壽命產品。



SPECIFICATIONS

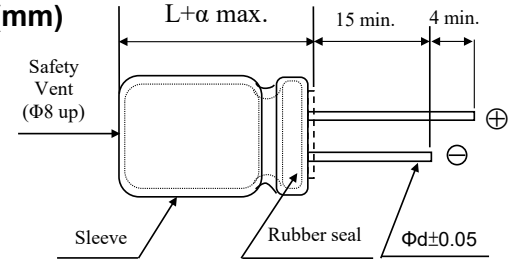
Items 項 目	Characteristics 特 性								
Capacitance Tolerance 靜電容量誤差	± 20%(120Hz,20℃)								
Operating Temperature Range 適用溫度範圍	-40 ~ +105℃								
Rated Voltage Range 額定電壓範圍	6.3 ~ 100VDC								
Leakage Current 洩漏電流	I ≦ 0.01CV or 3 (μA) which is greater.(After 2 minutes application of DC rated voltage, at 20 ℃)								
Dissipation Factor 散逸因素(tan δ)	Measurement Frequency: 120Hz. Temperature: 20℃								
	Rated Voltage(V)	6.3	10	16	25	35	50	63	80	100
	tan δ (Max)	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.09	0.08
	When nominal capacitance over 1000μF, tanδ shall be added 0.02 to the listed value with increase of every 1000μF.								
Low Temperature Stability 低溫特性 Impedance Ratio(Max) 阻抗比率(最大值)	Measurement Frequency: 120Hz.								
	Rated Voltage(V)	6.3	10	16	25	35	50	63	80	100
	Z(-25℃)/Z(20℃)	4	3	2	2	2	2	2	2	2
	Z(-40℃)/Z(20℃)	8	6	4	3	3	3	3	3	3
Load Life 負荷壽命	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjected to DC voltage with the rated ripple currrent is applied for varied hours according to varied Φ and voltage [please refer to below sheet] at 105℃.								
	Case Size		ΦD ≦ 6.3		ΦD = 8, 10		ΦD ≧ 13		
	Rated Voltage(V)	6.3~10 V	4,000hours		6,000hours		8,000hours		
		16~100 V	5,000hours		7,000hours		10,000hours		
	Capacitance Change	Within ± 25% of Initial Value							
	tan δ	200% or less of Initial Specified Value							
	Leakage Current	Initial Specified Value or less							
Shelf Life 放置壽命	The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 1,000 hours 105℃ without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to them 4.1 of JIS C5101-4.								
	Capacitance Change	Within ± 20% of Initial Value							
	tan δ	200% or less of Initial Specified Value							
	Leakage Current	Initial Specified Value or less							
Standards 參照標準	IEC 60384-4(JIS C5101-4)								

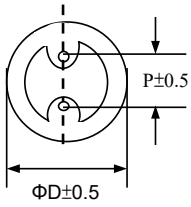
Frequency Coefficient of Permissible Ripple Current

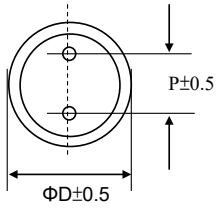
Capacitance (μF)	Frequency (Hz)				
	50	120	300	1K	100K
≦ 33	0.50	0.55	0.70	0.90	1.00
47 ~ 330	0.60	0.70	0.85	0.95	1.00
470 ~ 1000	0.65	0.75	0.90	0.98	1.00
1200 ~ 18000	0.70	0.80	0.95	1.00	1.00

HG series

DIMENSIONS(mm)







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	0.5	0.5	0.6	0.6	0.8	0.8

α	
	(L < 20) 1.5
	(L ≧ 20) 2.0

STANDARD RATINGS

DxL(mm), R.C：(mA rms) at 105℃ 100kHz , IMP:(Ω max) at 20℃,100kHz.

Cap (μF) \ V	6.3				10			
Item	D x L	IMP 20℃	IMP -10℃	R.C.	D x L	IMP 20℃	IMP -10℃	R.C
100					5x11	0.580	2.30	215
150	5x11	0.570	2.30	210	5x11	0.580	2.30	230
220	6.3x11	0.250	0.900	320	6.3x11	0.220	0.870	340
330	6.3x11	0.210	0.870	340	6.3x11	0.220	0.870	380
470	8X11.5	0.150	0.580	520	8X11.5	0.130	0.520	640
680	8X11.5	0.130	0.520	645	8x15	0.086	0.350	845
					10x12.5	0.080	0.310	865
820	10x12.5	0.080	0.320	865	10x16	0.070	0.280	1015
1000	8x15	0.085	0.350	870	8x20	0.068	0.270	1050
					10x16	0.060	0.240	1215
1200	8x20	0.071	0.260	1050	10x20	0.045	0.180	1410
	10x16	0.060	0.240	1215				
1500	10x20	0.045	0.180	1410	10x25	0.041	0.170	1650
					12.5x16	0.049	0.160	1450
1800	12.5x16	0.048	0.160	1460	12.5x20	0.039	0.150	1710
2200	10x25	0.042	0.170	1650	10x30	0.030	0.120	1920
					12.5x20	0.035	0.120	1910
					16x16	0.042	0.120	1940
2700	10x30	0.030	0.120	1910	18x16	0.042	0.110	2220
	16x16	0.041	0.120	1945				
3300	12.5x20	0.034	0.120	1900	12.5x25	0.026	0.089	2230
3900	12.5x25	0.026	0.088	2240	12.5x30	0.023	0.078	2660
	18x16	0.042	0.110	2210	16x20	0.026	0.078	2540
4700	12.5x30	0.023	0.078	2650	12.5x35	0.020	0.065	2890
5600	12.5x35	0.020	0.065	2890	12.5x40	0.016	0.055	3360
					16x25	0.020	0.060	2940
	16x20	0.026	0.077	2540	18x20	0.025	0.066	2870
6800	12.5x40	0.016	0.055	3350	16x31.5	0.016	0.050	3460
	16x25	0.020	0.060	2940				
	18x20	0.025	0.066	2870	18x25	0.018	0.049	3150
8200	16x31.5	0.016	0.050	3450	16x35.5	0.015	0.044	3610
					18x31.5	0.015	0.040	4180
10000	16x35.5	0.014	0.044	3620	16x40	0.013	0.038	4090
	18x25	0.018	0.049	3150	18x35.5	0.014	0.038	4230
12000	16x40	0.012	0.038	4090	18x40	0.011	0.032	4290
	18x31.5	0.014	0.040	4180				
15000	18x35.5	0.013	0.038	4230				
18000	18x40	0.012	0.032	4290				

HG series

STANDARD RATINGS

DxL(mm), R.C：(mA rms) at 105℃ 100kHz , IMP:(Ω max) at 20℃,100kHz.

Cap (μF)	V	16				25			
	Item	D x L	IMP		R.C.	D x L	IMP		R.C
			20℃	-10℃			20℃	-10℃	
47						5x11	0.570	2.30	210
56		5x11	0.570	2.30	220	5x11	0.570	2.30	240
100		6.3x11	0.210	0.820	310	6.3x11	0.210	0.870	340
120		6.3x11	0.210	0.870	340				
220		8x11.5	0.190	0.850	510	8x11.5	0.120	0.520	650
330		8x11.5	0.120	0.520	650	8x15	0.087	0.350	850
						10x12.5	0.080	0.320	870
470		8x15	0.086	0.350	840	8x20	0.069	0.270	1050
		10x12.5	0.080	0.320	865	10x16	0.060	0.240	1210
680		8x20	0.069	0.270	1060	10x20	0.045	0.180	1410
		10x16	0.060	0.240	1210	12.5x16	0.049	0.160	1460
820		10x20	0.052	0.220	1310	10x25	0.041	0.170	1660
1,000		10x20	0.045	0.180	1410	10x30	0.030	0.120	1920
						12.5x21	0.034	0.120	1910
		13x16	0.050	0.160	1450				
						16x16	0.042	0.120	1940
1,200		10x25	0.042	0.170	1650	18x16	0.043	0.110	2220
1,500		10x30	0.030	0.120	1920	12.5x25	0.026	0.089	2240
		12.5x21	0.035	0.120	1910				
		16x16	0.042	0.120	1940				
1,800		12.5x25	0.028	0.095	2140	12.5x30	0.024	0.078	2660
						16x20	0.026	0.078	2540
2,200		12.5x25	0.026	0.089	2240	12.5x35	0.020	0.065	2890
		18x16	0.042	0.110	2220	18x20	0.025	0.066	2870
2,700		12.5x30	0.023	0.077	2650	12.5x40	0.016	0.056	3360
		16x20	0.026	0.078	2540	16x25	0.021	0.060	2940
3,300		12.5x35	0.020	0.066	2890	16x31.5	0.016	0.050	3460
						18x25	0.018	0.048	3150
3,900		12.5x40	0.016	0.056	3350	16x35.5	0.014	0.043	3620
		16x25	0.021	0.060	2930				
						18x31.5	0.015	0.040	4180
		18x20	0.025	0.067	2860				
4,700		16x31.5	0.016	0.050	3450	16x40	0.014	0.044	4080
		18x25	0.018	0.049	3150	18x35.5	0.013	0.040	4230
5,600		16x35.5	0.015	0.044	3620	18x40	0.011	0.032	4290
		18x31.5	0.015	0.040	4180				
6,800		16x40	0.012	0.038	4080				
8,200		18x35.5	0.014	0.038	4230				
10,000		18x40	0.011	0.032	4290				

HG series

STANDARD RATINGS

DxL(mm), R.C：(mA rms) at 105℃ 100kHz , IMP:(Ω max) at 20℃,100kHz.

Cap (μF)	V	35				50			
	Item	D x L	IMP		R.C.	D x L	IMP		R.C
			20℃	-10℃			20℃	-10℃	
1						5x11	4.00	16.0	35
2.2						5x11	2.50	10.0	50
3.3						5x11	2.20	8.80	60
4.7						5x11	1.90	7.60	100
10						5x11	1.50	6.00	120
22						5x11	0.700	2.80	180
33		5x11	0.560	2.30	220				
47		6.3x11	0.350	1.40	280	6.3x11	0.300	1.20	300
56		6.3x11	0.210	0.860	340	6.3x11	0.300	1.20	300
100		8x11.5	0.150	0.560	510	8x11.5	0.160	0.670	560
120						8x15	0.120	0.480	740
150		8x11.5	0.130	0.520	650	10x12.5	0.120	0.480	770
180		8x15	0.086	0.350	840	8x20	0.090	0.360	920
220		8x15	0.086	0.350	850	10x16	0.083	0.340	1050
		10x12.5	0.080	0.320	865				
270		8x20	0.069	0.260	1060	10x20	0.060	0.240	1230
						12.5x16	0.062	0.200	1250
330		10x16	0.060	0.240	1210	10x25	0.053	0.220	1450
470		10x20	0.045	0.180	1410	10x30	0.043	0.170	1695
						12.5x20	0.044	0.150	1670
		12.5x16	0.048	0.150	1460				
						16x16	0.054	0.170	1695
560		10x25	0.041	0.160	1650	12.5x25	0.033	0.110	1950
						18x16	0.053	0.150	1940
680		10x30	0.030	0.120	1920	12.5x30	0.030	0.100	2320
		12.5x20	0.033	0.132	1910				
		16x16	0.041	0.143	1950				
820		12.5x25	0.028	0.088	2100	12.5x35	0.023	0.081	2520
						16x20	0.033	0.100	2220
1000		12.5x25	0.027	0.088	2230	12.5x40	0.020	0.069	2930
						16x25	0.025	0.075	2555
		18x16	0.043	0.110	2220				
						18x20	0.036	0.097	2490
1200		12.5x30	0.023	0.078	2660	16x31.5	0.021	0.066	3020
		16x20	0.026	0.078	2530	18x25	0.025	0.070	2750
1500		12.5x35	0.020	0.065	2880	16x35.5	0.018	0.056	3150
1800		12.5x40	0.016	0.056	3350	16x40	0.016	0.048	3720
		16x25	0.020	0.060	2940				
						18x31.5	0.021	0.057	3640
		18x20	0.025	0.066	2870				
2200		16x31.5	0.016	0.050	3500	18x35.5	0.017	0.046	3690
		18x25	0.019	0.049	3140				
2700		16x35.5	0.015	0.044	3620	18x40	0.014	0.038	3810
		18x31.5	0.014	0.040	4180				
3300		16x40	0.013	0.038	4090				
		18x35.5	0.014	0.040	4230				
3900		18x40	0.012	0.033	4290				

HG series

STANDARD RATINGS

DxL(mm), R.C：(mA rms) at 105℃ 100kHz , IMP:(Ω max) at 20℃,100kHz.

Cap (μF)	V	63				80			
	Item	D x L	IMP		R.C.	D x L	IMP		R.C
			20℃	-10℃			20℃	-10℃	
15		5x11	0.880	3.50	165				
33		6.3x11	0.350	1.40	265				
47		8x11.5	0.220	0.880	500				
56			0.220	0.880	500				
68						10x12.5	0.170	0.660	480
82		8x15	0.160	0.640	665				
		10x12.5	0.110	0.440	690				
100		10x16	0.078	0.330	950	10x16	0.110	0.470	600
120		8x20	0.120	0.480	820	10x20	0.084	0.340	800
		10x16	0.076	0.310	950				
150						10x25	0.069	0.280	900
						12.5x16	0.110	0.340	750
180		10x20	0.056	0.230	1150				
		12.5x16	0.072	0.290	1150				
220		10x25	0.046	0.190	1350	12.5x20	0.062	0.180	1100
270		12.5x20	0.041	0.130	1500				
330		12.5x25	0.032	0.093	1900	12.5x25	0.047	0.140	1250
						16x20	0.048	0.150	1350
390		12.5x25	0.031	0.093	1900	12.5x30	0.042	0.130	1500
470		12.5x30	0.028	0.084	2300	12.5x35	0.036	0.110	1650
		16x20	0.032	0.096	2000	16x25	0.038	0.120	1700
						18x20	0.045	0.140	1500
560		12.5x35	0.024	0.072	2500	12.5x40	0.032	0.095	1800
680		16x25	0.025	0.075	2600	16x31.5	0.032	0.095	1850
		12.5x40	0.021	0.063	2800	18x25	0.036	0.110	1750
		18x20	0.030	0.090	2500				
820		16x31.5	0.021	0.063	2850	16x35.5	0.029	0.086	2000
		18x25	0.024	0.072	2800	18x31.5	0.030	0.090	1900
1000		16x35.5	0.019	0.057	2900	16x40	0.027	0.081	2200
		18x31.5	0.021	0.063	2900	18x35.5	0.027	0.081	2200
1200		16x40	0.018	0.054	3400	18x40	0.026	0.077	2700
		18x31.5	0.020	0.060	3300				
1500		18x35.5	0.018	0.054	3400				
1800		18x40	0.017	0.051	3500				

Cap (μF)	V	100			
	Item	D x L	IMP		R.C
			20℃	-10℃	
6.8		5x11	1.40	5.60	125
15		6.3x11	0.570	2.30	205
27		8x11.5	0.360	1.40	355
39		8x15	0.250	1.00	450
47		10x12.5	0.170	0.660	480
56		8x20	0.190	0.760	565
68		10x16	0.110	0.470	600
82		10x20	0.084	0.340	800
100		12.5x16	0.110	0.340	750
120		10x25	0.069	0.280	900
150		12.5x20	0.062	0.180	1100
220		12.5x25	0.047	0.140	1250
		16x20	0.048	0.150	1350
270		12.5x30	0.042	0.130	1500
330		12.5x35	0.036	0.110	1650
		16x25	0.038	0.120	1700
		18x20	0.045	0.140	1500
390		12.5x40	0.032	0.095	1800
470		16x31.5	0.032	0.095	1850
		18x25	0.036	0.110	1750
560		16x35.5	0.029	0.086	2000
		18x31.5	0.030	0.090	1900
680		16x40	0.027	0.081	2200
		18x35.5	0.027	0.081	2200
820		18x40	0.026	0.077	2700