

CGL series

- Low impedance, 125°C 2000~3000 hours long life
- Applicable to SMT process
- AEC-Q200 Compliant
- RoHS Compliant



SPECIFICATIONS

Items	Characteristics				
Capacitance Tolerance	±20% (120Hz, 20°C)				
Operating Temperature Range	-40°C ~ +125°C				
Rated Voltage Range	16 ~ 50VDC				
Capacitance Range	33 ~ 330μF				
Leakage Current	I ≤ 0.01CV or 3(μA), which is greater. (After 2 minutes application of DC rated voltage at 20°C)				
Dissipation Factor (tan δ)	Measurement Frequency: 120Hz. Temperature: 20°C				
	Rated Voltage(V)	16	25	35	50
	tan δ (Max)	0.23	0.18	0.16	0.14
Low Temperature Stability	Measurement Frequency: 120Hz				
	Rated Voltage(V)	16	25	35	50
	Z(-25°C) / Z(20°C)	3	3	2	2
Impedance Ratio(Max)	Z(-40°C) / Z(20°C)	4	4	3	3
	5000 hours with application of rated voltage at 125°C				
Load Life	Capacitance Change	within ±30% of Initial Value			
	tan δ	300% or less of Initial Specified Value			
	Leakage Current	Initial Specified Value or less			
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1000 hours 125°C without voltage applied. Before the measurement, the capacitance shall be preconditioned by applying voltage according to them 4.1 of JIS C5101-4.				
	Capacitance Change	Within ±30% of Initial Value			
	tan δ	300% or less of Initial Specified Value			
	Leakage Current	Initial Specified Value or less			
Resistance to Soldering Heat	The capacitors shall be kept on the hot plate maintained at 250°C for 30 seconds.		Capacitance Change	Within ± 10% of Initial Value	
	After removing from the hot plate and restored at room temperature, they meet the characteristics requirements listed at right.		tan δ	Initial Specified Value	
			Leakage Current	Initial Specified Value or less	
Standards	JIS C 5101-4-1 (IEC 60384)				

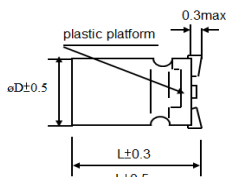
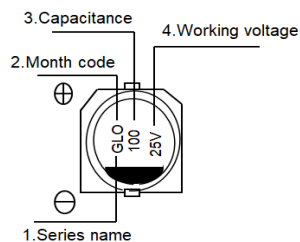
Frequency Coefficient of Permissible Ripple Current

Frequency (Hz)	120 ≤ F < 1K	1K ≤ F < 10K	10K ≤ F < 100K	100K ≤ F
Capacitance (μF)				
33 ~ 330	0.40	0.75	0.90	1.00

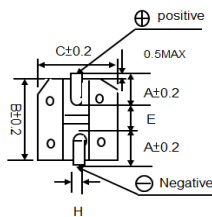
The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, The rms ripple current has to be reduced.

DIMENSIONS(mm)

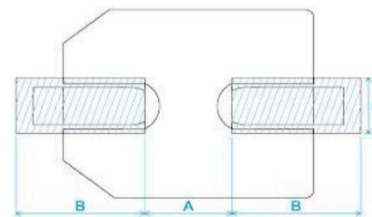
■ Chip Type



Apply to $\phi 8 \times 10, 10 \times 10$, Tolerance: $L \pm 0.5$ mm



■ Land / Pad pattern



ΦD	8*10	10*10
A	2.9	3.2
B	8.3	10.3
C	8.3	10.3
E	3.1	4.5
L	10	10
H	0.8~1.1	0.8~1.1

DxL	A	B	C
$\Phi 4$	1	2.6	1.6
$\Phi 5$	1.4	3	1.6
$\Phi 6.3$	1.9	3.5	1.6
$\Phi 8$	3	3.5	2.5
$\Phi 10$	4	4	2.5
$\Phi 12.5$	4.3	5.8	2.5
$\Phi 16$	6.6	6.5	5
$\Phi 18$	6.6	7.7	5
$\Phi 8(G)$	2.5	4.5	4.7
$\Phi 10(G)$	3.8	4.8	4.7
$\Phi 12.5(G)$	3.8	6.1	6.9
$\Phi 16(G)$	5	8	9.5
$\Phi 18(G)$	5	8.6	9.5

"(G)" "Anti-vibration Structure"

Electric Characteristics

Su'scon P/N	Cap. (μF)	Cap. Tol. (%)	Rate Volt. (V-DC)	Surge Volt. (V-DC)	Oper. Temp. ($^{\circ}C$)	Nominal Case Size D*L(mm)	Leakage Current Max (μA)	D.F. MAX (%)	R.C 100KHz (mA rms)	IMP 100KHz at 25 $^{\circ}C$ (Ω)Max	Load Life (hours)
CGL025M101F10PE50V00A	100	± 20	25	28.8	125	8*10	25	18	300	0.300	3000
CGL025M221F10PE50V00A	220	± 20	25	28.8	125	8*10	55	18	300	0.300	3000
CGL050M101G10PE50V00A	100	± 20	50	57.5	125	10*10	50	14	350	0.250	3000

REMARKS:

1. Dissipation Factor Test: at 20 $^{\circ}C$, 120 Hz
2. Capacitance Test: at 20 $^{\circ}C$, 120 Hz
3. Ripple Current Test: at 125 $^{\circ}C$, 100K Hz
4. Leakage Current: Initial specified value or less;
5. When have characteristic requested: Load life & shelf life test and etc., judgment standard reference to our catalogue.
6. Remarks: Su'scon Part Number with suffix code "A" is specially offered for automotive project, which meets AEC-Q200 standard.

US Contact Information

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CGL-REV.1