

CGL series

- Low impedance, 125°C 2000~3000 hours Long Life.
- Applicable to SMT process.
- RoHS Compliance.
- 125°C低阻抗、2000~3000hours長壽命產品。
- 適用於SMT製程。



SPECIFICATIONS

Items 項目	Characteristics 特性																			
Capacitance Tolerance 靜電容量誤差	$\pm 20\%$ (120Hz,20°C)																			
Operating Temperature Range 適用溫度範圍	-40 ~ +125°C																			
Rated Voltage Range 額定電壓範圍	16~50VDC																			
Capacitance Range 靜電容量範圍	33~330μF																			
Leakage Current 洩漏電流	$I \leq 0.01CV$ or 3 (μ A), which is greater. (After 2 minutes application of DC rated voltage, at 20°C)																			
Dissipation Factor 散逸因素($\tan \delta$)	Measurement Frequency: 120Hz. Temperature: 20°C <table border="1"> <tr> <td>Rated Voltage(V)</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td>$\tan \delta$(Max)</td> <td>0.23</td> <td>0.18</td> <td>0.16</td> <td>0.14</td> </tr> </table>					Rated Voltage(V)	16	25	35	50	$\tan \delta$ (Max)	0.23	0.18	0.16	0.14					
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Low Temperature Stability 低溫特性	Measurement Frequency: 120Hz. <table border="1"> <tr> <td>Rated Voltage(V)</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td>$Z(-25^\circ\text{C})/Z(20^\circ\text{C})$</td> <td>3</td> <td>3</td> <td>2</td> <td>2</td> </tr> <tr> <td>$Z(-40^\circ\text{C})/Z(20^\circ\text{C})$</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> </tr> </table>					Rated Voltage(V)	16	25	35	50	$Z(-25^\circ\text{C})/Z(20^\circ\text{C})$	3	3	2	2	$Z(-40^\circ\text{C})/Z(20^\circ\text{C})$	4	4	3	3
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Load Life 負荷壽命	3000hours,with application of rated voltage at 125°C <table border="1"> <tr> <td>Capacitance Change</td> <td colspan="4">Within $\pm 30\%$ of Initial Value</td> </tr> <tr> <td>$\tan \delta$</td> <td colspan="4">300% or less of Initial Specified Value</td> </tr> <tr> <td>Leakage Current</td> <td colspan="4">Initial Specified Value or less</td> </tr> </table>					Capacitance Change	Within $\pm 30\%$ of Initial Value				$\tan \delta$	300% or less of Initial Specified Value				Leakage Current	Initial Specified Value or less			
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Shelf Life 放置壽命	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 capacitor shall be preconditioned by applying voltage according to them 4.1 of JIS C5101-4. <table border="1"> <tr> <td>Capacitance Change</td> <td colspan="4">Within $\pm 30\%$ of Initial Value</td> </tr> <tr> <td>$\tan \delta$</td> <td colspan="4">300% or less of Initial Specified Value</td> </tr> <tr> <td>Leakage Current</td> <td colspan="4">Initial Specified Value or less</td> </tr> </table>					Capacitance Change	Within $\pm 30\%$ of Initial Value				$\tan \delta$	300% or less of Initial Specified Value				Leakage Current	Initial Specified Value or less			
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Resistance to Soldering Heat 焊錫耐熱性	The capacitors shall be kept on the hot plate maintained at 250°C for 30 seconds. After removing from the hot plate and restored at room temperature they meet the characteristics requirements listed at right.			Capacitance Change	Within $\pm 10\%$ of Initial Value															
				$\tan \delta$	Initial Specified Value															
				Leakage Current	Initial Specified Value or less															
Standards 參照標準	JIS C 5101-4-1 (IEC 60384)																			

Frequency Coefficient of Permissible Ripple Current

Frequency (Hz) Capacitance (μ F)	$120 \leq F < 1K$	$1K \leq F < 10K$	$10K \leq F < 100K$	$100K \leq F$
33~330	0.4	0.75	0.9	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.

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DIMENSIONS(mm)

Fig.1 ØD=6~10mm

■ Chip Type

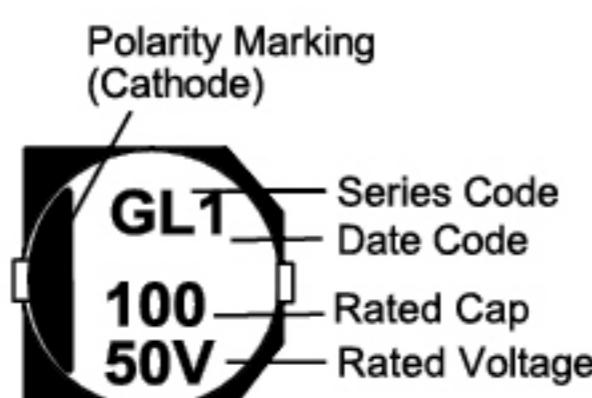
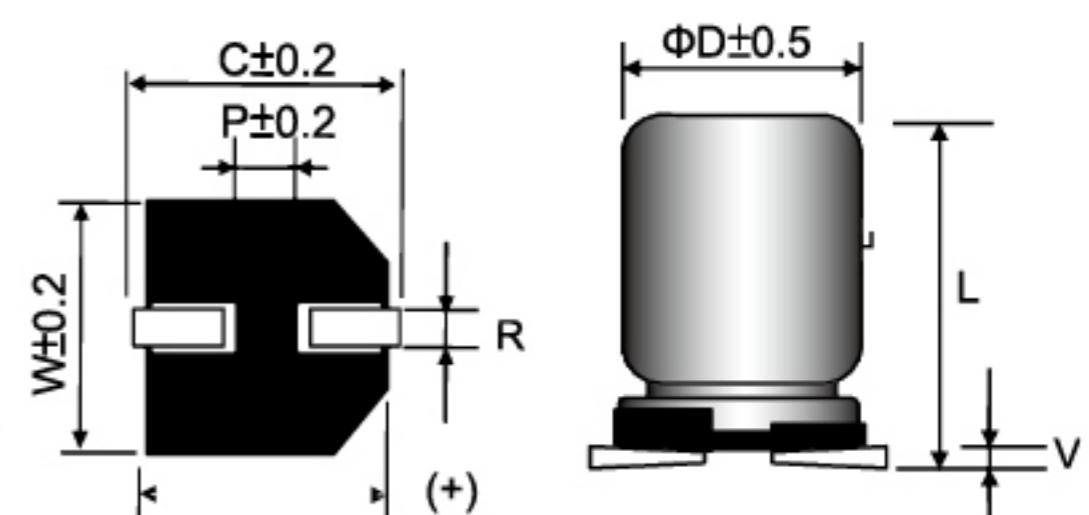
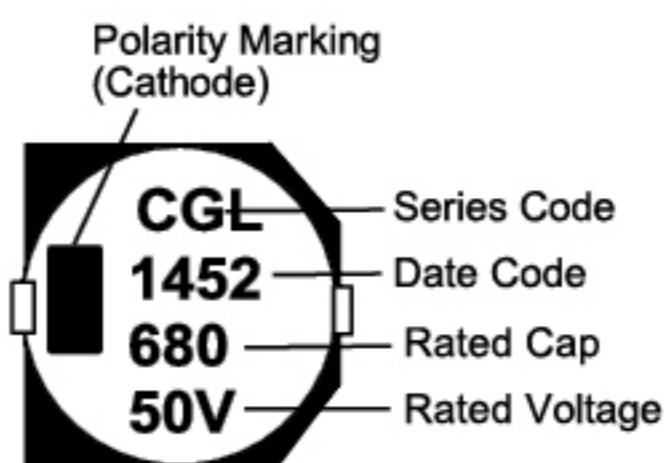


Fig.2 ØD≥12.5mm



Size	ØD	L	W	H	C	R	P	V _{max}	(mm)
6.3 × 6	6.3	6.0 ± 0.3	6.6	6.6	7.2	0.5~0.8	2.1	0.3	
6.3 × 7.7	6.3	7.7 ± 0.3	6.6	6.6	7.2	0.5~0.8	2.1	0.3	
8 × 10	8.0	10.0 ± 0.5	8.3	8.3	9.0	0.7~1.1	3.2	0.3	
10 × 10	10.0	10.0 ± 0.5	10.3	10.3	11.0	0.7~1.1	4.5	0.3	
12.5 × 13.5	12.5	13.5 ± 0.5	13.0	13.0	13.7	1.1~1.4	4.5	0.4	
12.5 × 16	12.5	16.5 ± 0.5	17.0	17.0	18.0	1.4~1.8	D×L (mm); R.C. (mA rms)	0.4	at 125°C 100KHz, ESR (Ω max)

STANDARD RATINGS

Cap (μF)	V	16				25				35				50				
		Item	D x L	R.C.	ESR		D x L	R.C.	ESR		D x L	R.C.	ESR		D x L	R.C.	ESR	
					20°C	-40°C			20°C	-40°C			20°C	-40°C			20°C	-40°C
33	6.3x6	70	1.0	15	6.3x6	70	1.0	15							8x10	250	0.36	4.5
47	6.3x7.7	200	0.70	10	6.3x7.7	200	0.70	10	8x10	300	0.30	4.5	10x10	350	0.25	3		
		300	0.30	4.5	8x10	300	0.30	4.5	8x10	300	0.30	4.5	10x10	350	0.25	3		
100	8x10	300	0.30	4.5	8x10	300	0.30	4.5	10x10	500	0.20	3						
		500	0.20	3	10x10	500	0.20	3	10x10	500	0.20	3						
220	8x10	300	0.30	4.5	8x10	300	0.30	4.5	10x10	500	0.20	3						
330	10x10	500	0.20	3	10x10	500	0.20	3										
680									12.5x16	1470	0.056	2						