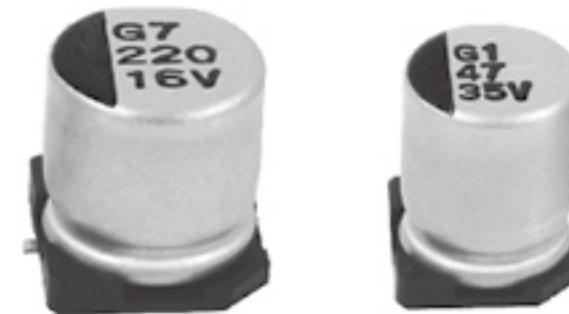


CG series

- Wide range of -55~+125°C, long life product.
- Applicable to SMT process.
- RoHS Compliance.
- 55 ~ +125°C 廣溫度、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	-55 ~ +125°C					-40 ~ +125°C																																											
Rated Voltage Range 額定電壓範圍	10 ~ 63VDC					80 ~ 160VDC																																											
Capacitance Range 靜電容量範圍	10 ~ 470μF					2.2 ~ 4.7μF																																											
Leakage Current 洩漏電流	$I \leq 0.01CV$ or $3(\mu A)$, 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>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>80</td> <td>100</td> <td>160</td> </tr> <tr> <td>$\tan \delta$(Max)</td> <td>0.32</td> <td>0.24</td> <td>0.21</td> <td>0.18</td> <td>0.18</td> <td>0.15</td> <td>0.15</td> <td>0.12</td> <td>0.20</td> </tr> </table>									Rated Voltage(V)	10	16	25	35	50	63	80	100	160	$\tan \delta$ (Max)	0.32	0.24	0.21	0.18	0.18	0.15	0.15	0.12	0.20																				
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Low Temperature Stability 低溫特性	Measurement Frequency: 120Hz. <table border="1"> <tr> <td>Rated Voltage(V)</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>80</td> <td>100</td> <td>160</td> </tr> <tr> <td>$Z(-25^\circ C)/Z(20^\circ C)$</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>-</td> </tr> <tr> <td>$Z(-40^\circ C)/Z(20^\circ C)$</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>3</td> <td>3</td> <td>-</td> </tr> <tr> <td>$Z(-55^\circ C)/Z(20^\circ C)$</td> <td>6</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>-</td> <td>-</td> <td>-</td> </tr> </table>									Rated Voltage(V)	10	16	25	35	50	63	80	100	160	$Z(-25^\circ C)/Z(20^\circ C)$	3	2	2	2	2	2	2	2	-	$Z(-40^\circ C)/Z(20^\circ C)$	-	-	-	-	-	-	3	3	-	$Z(-55^\circ C)/Z(20^\circ C)$	6	4	4	3	3	3	-	-	-
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$Z(-55^\circ C)/Z(20^\circ C)$	6	4	4	3	3	3	-	-	-																																								
Impedance Ratio(Max) 阻抗比率(最大值)	<table border="1"> <tr> <td>$Z(-25^\circ C)/Z(20^\circ C)$</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>-</td> </tr> <tr> <td>$Z(-40^\circ C)/Z(20^\circ C)$</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>3</td> <td>3</td> <td>-</td> </tr> <tr> <td>$Z(-55^\circ C)/Z(20^\circ C)$</td> <td>6</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>-</td> <td>-</td> <td>-</td> </tr> </table>									$Z(-25^\circ C)/Z(20^\circ C)$	3	2	2	2	2	2	2	2	-	$Z(-40^\circ C)/Z(20^\circ C)$	-	-	-	-	-	-	3	3	-	$Z(-55^\circ C)/Z(20^\circ C)$	6	4	4	3	3	3	-	-	-										
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Load Life 負荷壽命	3000hours, with application of rated voltage at 125°C $(\text{ØD}=4\sim6.3\times5.4\text{mm} : 1000\text{hrs}; 6.3\times7.7\text{mm} : 2000\text{hrs})$ Capacitance Change Within $\pm 30\%$ of Initial Value $\tan \delta$ 300% 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°C after exposing them for 1,000 hours 125°C without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C5101-4. Capacitance Change Within $\pm 30\%$ of Initial Value $\tan \delta$ 300% or less of Initial Specified Value Leakage Current 500% or less of Initial Specified Value																																																
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																																										
Marking 標識	Black print on the case top																																																

Frequency Coefficient of Permissible Ripple Current

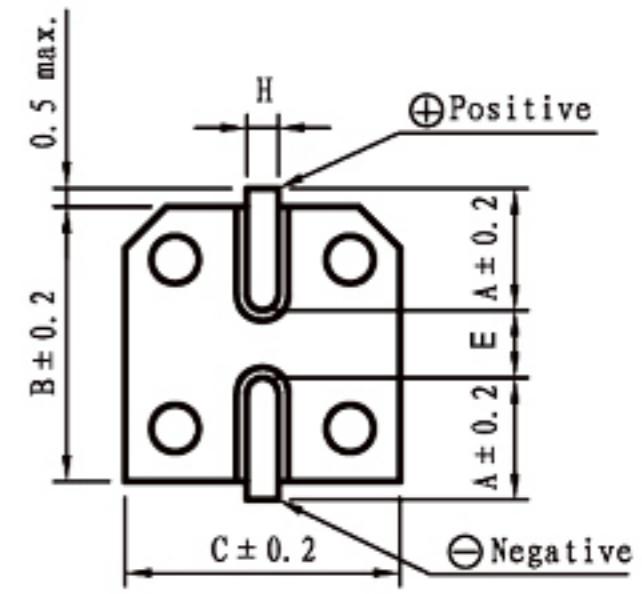
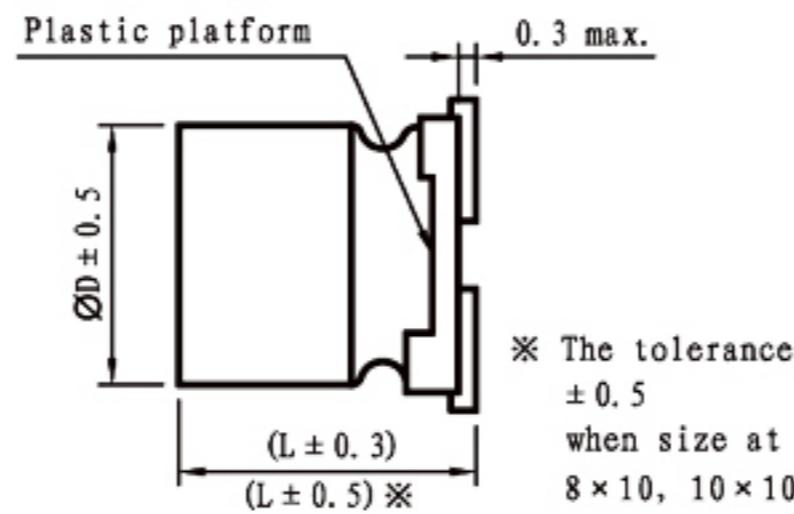
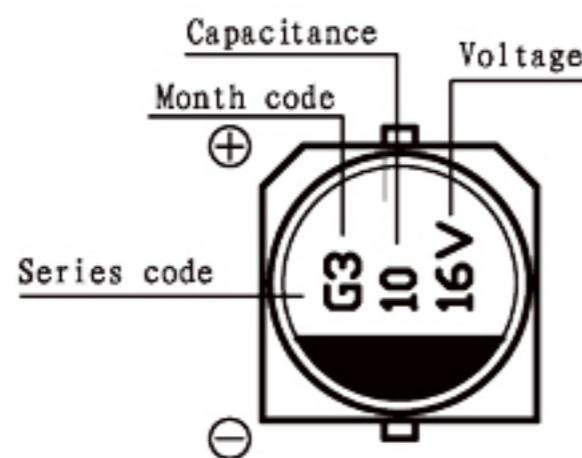
Frequency (Hz)	50	60	120	1K	$\geq 10K$
Coefficient	0.64	0.64	1.00	1.36	1.50

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.

CG series

DIMENSIONS(mm)

Chip Type



$\phi D \times L$	6.3x5.4	6.3x7.7	8x10	10x10
A	2.4	2.4	2.9	3.2
B	6.6	6.6	8.3	10.3
C	6.6	6.6	8.3	10.3
E	2.1	2.1	3.2	4.5
L	5.4	7.7	10	10
H	0.5~0.8	0.5~0.8	0.8~1.1	0.8~1.1

STANDARD RATINGS

D×L(mm); R.C.(mA rms) at 125°C 120Hz.

Cap (μF)	V	10		16		25		35		50	
		Item	D x L	R.C.	D x L						
10								6.3x5.4	46	6.3x7.7	34
22								6.3x5.4	46	6.3x7.7	55
33						6.3x5.4	46	6.3x7.7	73	8x10	106
47				6.3x5.4	40	6.3x7.7	73	6.3x7.7	73	8x10	106
										10x10	164
100		6.3x7.7	58	6.3x7.7	73	6.3x7.7	73	8x10	131		
						8x10	131	10x10	164	10x10	164
220		6.3x7.7	58	8x10	131	8x10	131				
				10x10	164	10x10	164	10x10	164		
330		8x10	90								
		10x10	112	10x10	164	10x10	164				
470		10x10	130								

Cap (μF)	V	63		80		100		160		
		Item	D x L	R.C.	D x L	R.C.	D x L	R.C.	D x L	R.C.
2.2									8x10	22
3.3									8x10	22
4.7									10x10	70
10		6.3x7.7	40	8x10	46	8x10	46			
22		8x10	66	8x10	46	8x10	46			
				10x10	76	10x10	76			
33		8x10	66	8x10	46					
		10x10	113	10x10	76	10x10	76			
47		8x10	66							
		10x10	113							