

# CGH series

- 135°C 2000 hours Long Life.
- Applicable to SMT process.
- RoHS Compliance.
- 135°C 2000hours 长寿命品。
- 适用于SMT制程。



## SPECIFICATIONS

Items 項目	Characteristics 特性					
Capacitance Tolerance 靜電容量誤差	±20%(120Hz,20°C)					
Operating Temperature Range 適用溫度範圍	-40°C ~ +135°C					
Rated Voltage Range 額定電壓範圍	10~63VDC					
Capacitance Range 靜電容量範圍	33~2200μF					
Leakage Current 洩漏電流	10~63WV 8~10ΦI ≤ 0.01CV or 3 (μA) , 12.5~16ΦI ≤ 0.03CV or 4 (μA), which is greater.					
Dissipation Factor 散逸因素( tan δ)	Measurement Frequency:120Hz. Temperature: 20°C					
	Rated Voltage(V)	10	16	25	35~50	63
	tan δ(Max)	0.24	0.22	0.20	0.16	0.14
Low Temperature Stability 低溫特性 Impedance Ratio(Max) 阻抗比率(最大值)	Measurement Frequency: 120Hz.					
	Rated Voltage(V)	10	16	25	35~63	
	Z(-25°C)/Z(20°C)	4	3	2	2	
	Z(-40°C)/Z(20°C)	8	6	4	3	
Load Life 負荷壽命	2000hours,with application of rated voltage at 135°C					
	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 放置壽命	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1000hours 135°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 ±300% of Initial Value				
	tan δ	300% or less of Initial Specified Value				
	Leakage Current	Initial Specified Value or less				
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.			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 參照標準	JIS C 5101-4-1 (IEC 60384)					

## Frequency Coefficient of Permissible Ripple Current

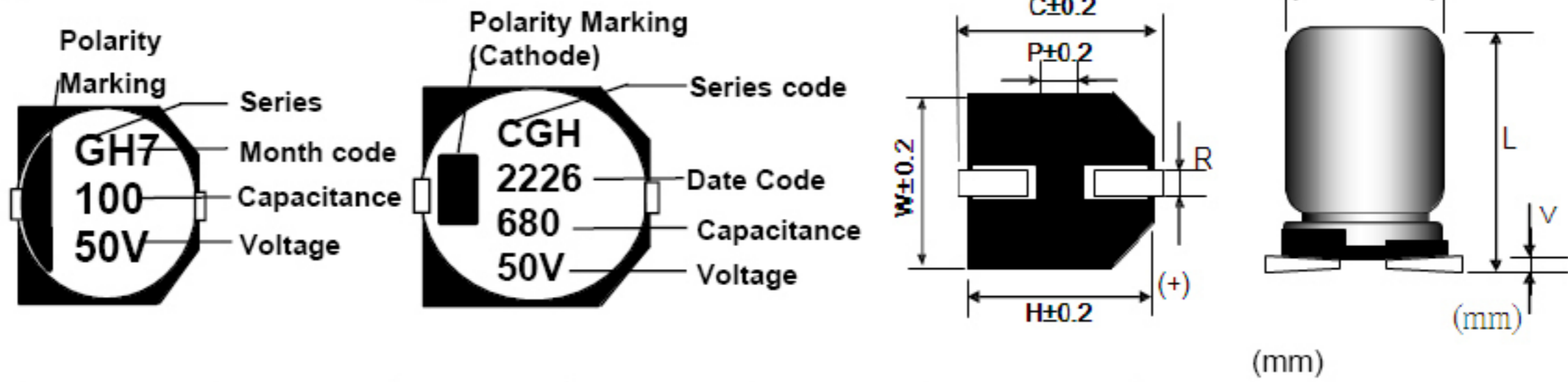
Frequency (Hz)	100 ≤ F < 1K	1K ≤ F < 10K	10K ≤ F < 100K	100K ≤ F
Capacitance (μF)				
1~33	0.55	0.83	0.93	1.00
>33	0.60	0.86	0.93	1.00

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.

# CGH series

**DIMENSIONS(mm)**

Chip Type Fig.1  $\Phi D=8\sim 10\text{mm}$  Fig.2  $\Phi D \geq 12.5\text{mm}$



Size	$\Phi D$	$L \pm 0.5$	W	H	C	R	P	Vmax
8x10	8.0	10.0	8.3	8.3	9.0	0.7~1.1	3.2	0.3
10x10	10.0	10.0	10.3	10.3	11.0	0.7~1.3	4.5	0.3
12.5x13.5	12.5	13.5	13.0	13.0	13.7	1.1~1.4	4.5	0.4
16x16.5	16.0	16.5	17.0	17.0	18.0	1.4~1.8	6.4	0.4
16x21.5	16.0	21.5	17.0	17.0	18.0	1.4~1.8	6.4	0.4
18x16.5	18.0	$16.5 \pm 1.0$	19.0	19.0	20.0	1.4~1.8	6.4	0.4
18x21.5	18.0	$21.5 \pm 1.0$	19.0	19.0	20.0	1.4~1.8	6.4	0.4

CGH

**STANDARD RATINGS**

DxL(mm) ; R.C.(mA rms) at 135°C 100KHz, IMP( $\Omega$  max) at 20°C 100KHz.

Cap ( $\mu F$ )	V Item	10		16		25		35		50		63	
		D x L	R.C.	D x L	R.C.	D x L	R.C.	D x L	R.C.	D x L	R.C.	D x L	R.C.
33												8x10	100
47										8x10	160	10x10	120
100				8x10	220	8x10	220	8x10	200	10x10	240	10x10	270
220		8x10	220	8x10	220	10x10	216	10x10	300	12.5x13.5	550		
330		8x10	220	10x10	300	10x10	300	12.5x13.5	750				
		10x10	300										
470		10x10	300	10x10	280	12.5x13.5	750			16x16.5	850	16x16.5	820
680				12.5x13.5	280			16x16.5	1000	18x16.5	1200		
1000		12.5x13.5	750			16x16.5	1000	16x16.5	1000	16x21.5	1600		
1500		12.5x13.5	750	16x16.5	1000	16x16.5	1000	16x21.5	1900				
2200		16x16.5	1000			18x16.5	1400	16x21.5	2200				
2700		16x16.5	1000			16x21.5	1900						
3300						18x21.5	2200						