

GH series

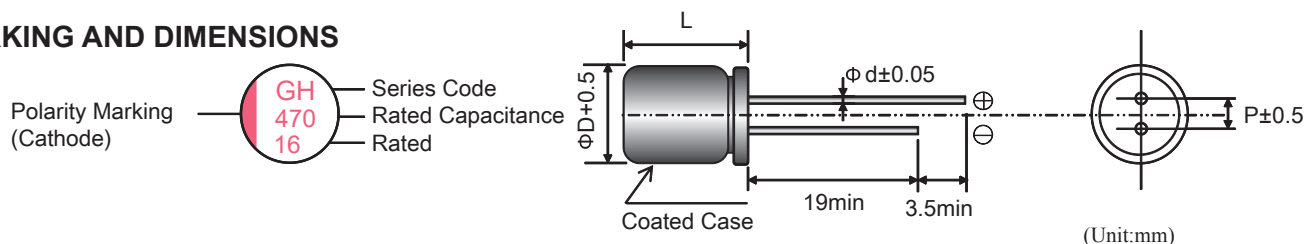
- Low ESR, High Voltage, High ripple current capability
- Rated voltage :35~63V
- Endurance:2,000hours at 105°C
- Applications: LED Driver, LED Power Supply etc.
- ROHS compliant
- Halogen Free compliant

SPECIFICATIONS

Items	Conditions	Characteristics
Category Temperature Range	—	-55 to +105°C
Rated Voltage Range	—	35 ~ 100V
Capacitance Tolerance	at 20°C, 120Hz	±20%(M)
Surge Voltage	at 105°C	Rated voltage × 1.15V
Leakage Current	at 20°C After 2 minutes	$I \leq 0.2CV$ or 300(μA) Whichever is greater measured, after 2 minutes application of rated working voltage at +20°C. Please see the attached characteristics list
Dissipation Factor (tan δ)	at 20°C, 120Hz	Please see the attached characteristics list
Characteristics of Impedance at low, high temperature	at -55°C, 100kHz	$Z(-55^{\circ}\text{C})/Z(+20^{\circ}\text{C}) \leq 1.25$
	at -25°C, 100kHz	$Z(-25^{\circ}\text{C})/Z(+20^{\circ}\text{C}) \leq 1.15$
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 2,000 hours at 105°C.	Appearance NO significant damage.
		Capacitance change $\leq \pm 20\%$ of the initial value.
		DF(tanδ) $\leq 150\%$ of the initial specified value.
		ESR $\leq 150\%$ of the initial specified value.
		Leakage current $\leq$ The initial specified value.
Damp Heat (Steady State)	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjecting them to store 60°C, 90 to 95% RH for 1,000 hours, without DC applied.	Appearance NO significant damage.
		Capacitance change $\leq \pm 20\%$ of the initial value.
		DF(tanδ) $\leq 150\%$ of the initial specified value.
		ESR $\leq 150\%$ of the initial specified value.
		Leakage current $\leq$ The initial specified value.
Surge Voltage	The capacitors shall be subjected to 1,000 cycles each consisting of charge with the surge voltages specified at 105°C for 30 seconds through a protective resistor ($R = 1 \text{ k}\Omega$) and discharge for 5 minutes 30 seconds.	Appearance NO significant damage.
		Capacitance change $\leq \pm 20\%$ of the initial value.
		DF(tanδ) $\leq 150\%$ of the initial specified value.
		ESR $\leq 150\%$ of the initial specified value.
		Leakage current $\leq$ The initial specified value.

※ Note : If any doubt arises, measure the leakage current after following voltage treatment.
Voltage treatment : DC rated voltage are applied to the capacitors for 120 minutes at 105°C.

MARKING AND DIMENSIONS



Size	6.3x8	8x6	8x10	8x12	10x10	10x12
ΦD	6.3	8.0	8.0	8.0	10.0	10.0
L	L+1.0 max	L+1.0 max	L+1.0 max	L+1.0 max	L+1.0 max	L+1.0 max
Φd	0.5	0.6	0.6	0.6	0.6	0.6
P	2.5	3.5	3.5	3.5	5.0	5.0

GH SERIES STANRD CHARACTERISITICS LIST

Rated voltage (S.V.)	Cap (μ F)	Size DXL	Leakage current (μ A) max. ※2	ESR ($m\Omega$) max. 100k to 300kHz /20°C	Rated Ripple Current (mA rms) 105°C 100kHz	D.F. ($\tan\delta$) max. 120Hz /20°C
35 (40.3)	22	8x6	300	60	1,450	0.12
	56	8x12	392	50	2,300	0.12
	68	8x6	476	60	1,450	0.12
	100	8x12	700	50	2,300	0.12
	100	10x12	700	30	3,000	0.12
	220	10x12	1,540	30	3,000	0.12
	330	10x12	2,310	28	3,100	0.12
50 (57.5)	12	6.3x8	300	120	660	0.12
	33	8x6	330	90	900	0.12
	47	8x12	470	70	1,300	0.12
	100	10x12	1,000	50	1,800	0.12
63 (72.45)	22	8x12	300	35	1,800	0.12
	33	10x10	416	80	1,000	0.12
	47	10x12	592	50	1,800	0.12

※ 1. Capacitance tolerance : $\pm 20\%$ (M)

※ 2. After 2 minutes

FREQUENCY COEFFICIENT FOR RIPPLE CURRENT

Frequency	120Hz $\leq f < 1$ kHz	1kHz $\leq f < 10$ kHz	10kHz $\leq f < 100$ kHz	100kHz $\leq f < 500$ kHz
Coefficient	0.05	0.3	0.7	1