

GK_{HH} series

105°C PC Board Mounting Type



- Higher C/V products.
- Plentiful line-up from $\phi 35 \times 63$ to $\phi 40 \times 100\text{mm}$.
- Auxiliary terminals provided to assure anti-vibration performance.
- Adapted to the RoHS directive (2002/95/EC).

GK_{HH} ← High C/V GU

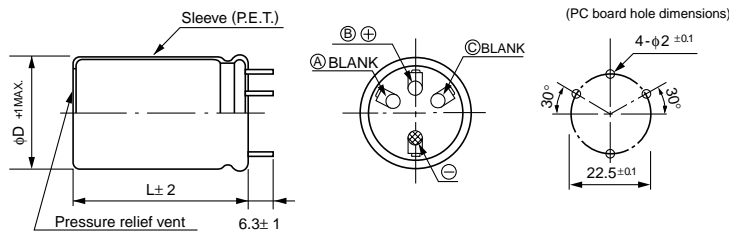


Specifications

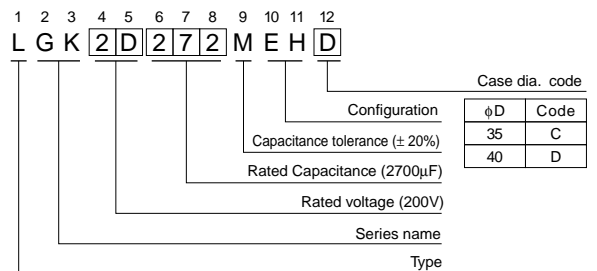
Item	Performance Characteristics												
Category Temperature Range	- 40 to +105°C (16 to 250V) , - 25 to +105°C (400V)												
Rated Voltage Range	16 to 400V												
Rated Capacitance Range	560 to 68000 μ F												
Capacitance Tolerance	$\pm 20\%$ at 120Hz, 20°C												
Leakage Current	$I \leq 3\sqrt{CV}$ (μ A) (After 5 minutes' application of rated voltage) [C : Rated Capacitance (μ F) V : Voltage (V)]												
tan δ	Measurement frequency : 120Hz, Temperature : 20°C												
	Rated voltage(V)	16	25	35	50	63	80	100	160	200	250	400	
	tan δ (MAX.)	0.60	0.50	0.40	0.35	0.30	0.30	0.25	0.20	0.15	0.15	0.30	
Stability at Low Temperature	Measurement frequency : 120Hz												
	Rated voltage(V)			16 to 250			400						
	Impedance ratio	Z-25°C/Z+20°C			4			8					
	ZT/Z20 (MAX.)	Z-40°C/Z+20°C			15			—					
Endurance	After an application of DC voltage(in the range of rated DC voltage even after over-lapping the specified ripple current) for 2000 hours at 105°C, capacitors meet the characteristic requirements listed at right.						Capacitance change		Within $\pm 20\%$ of initial value				
							tan δ		200% or less of initial specified value				
							Leakage current		Initial specified value or less				
Shelf Life	After storing the capacitors under no load at 105°C for 1000 hours, and after performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they will meet the requirements listed at right.						Capacitance change		Within $\pm 15\%$ of initial value				
							tan δ		150% or less of initial specified value				
							Leakage current		Initial specified value or less				
Marking	Printed with white color letter on black sleeve.												

Drawing

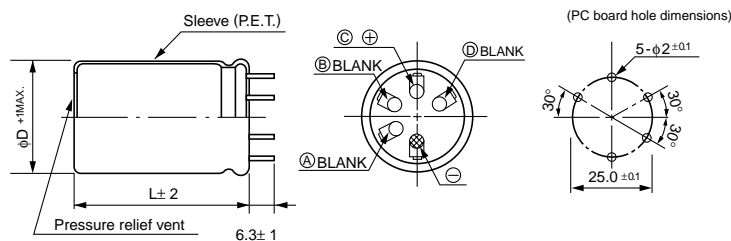
- For all of $\phi 35\text{mm}$ products and for 63mmL or shorter with $\phi 40\text{mm}$.



Type numbering system (Example : 200V 2700 μ F)



- For 63mmL or longer with $\phi 40\text{mm}$.



Notes:
As blank terminals are not insulated from capacitor element, they shall be mounted on independent lands.

Frequency coefficient of rated ripple current

Frequency (Hz)	50	60	120	1 k	10k or more	
Coeff.	16 to 100V	0.88	0.90	1.00	1.15	1.15
	160 to 250V	0.85	0.88	1.00	1.15	1.20
	400V	0.88	0.90	1.00	1.10	1.15

Minimum order quantity : 50pcs.

- Dimension table in next page.

■ Dimensions

Cap. (μF)	Code	V(Code)	φD	16V (1C)		25V (1E)		35V (1V)		50V (1H)	
				35	40	35	40	35	40	35	40
18000	183									35×68 5.55	40×63 5.80
22000	223							35×63 5.10	40×50 5.00	35×80 6.35	40×63 6.15
27000	273							35×68 5.50	40×63 5.80		
33000	333					35×63 5.60	40×50 5.50	35×80 6.25	40×63 6.05		
39000	393					35×68 6.00	40×63 6.30				
47000	473			35×63 5.90	40×50 5.75	35×80 6.80	40×63 6.60				
56000	563			35×68 6.20	40×63 6.45						
68000	683			35×80 6.90	40×63 6.70						

Cap. (μF)	Code	V(Code)	φD	63V (1J)		80V (1K)		100V (2A)	
				35	40	35	40	35	40
5600	562							35×68 4.40	40×63 4.55
6800	682							35×80 4.80	40×63 4.65
8200	822					35×63 4.75	40×50 4.65		
10000	103					35×80 5.45	40×63 5.00		
12000	123			35×63 5.35	40×50 5.25				
15000	153			35×68 5.85	40×63 6.10				

Cap. (μF)	Code	V(Code)	φD	160V (2C)		200V (2D)		250V (2E)		400V (2G)	
				35	40	35	40	35	40	35	40
560	561									35×63 1.75	40×50 1.70
680	681									35×80 2.05	40×63 2.00
820	821									35×80 2.20	
1000	102									35×100 2.65	40×80 2.60
1200	122							35×63 2.75	40×50 2.70		40×100 3.00
1500	152							35×68 3.20	40×63 3.35		
1800	182					35×63 3.30	40×50 3.20	35×100 4.05	40×80 3.95		
2200	222			35×63 3.50	40×50 3.45	35×80 3.90	40×63 3.80	35×100 4.35	40×80 4.20		
2700	272			35×68 3.90	40×63 4.10	35×100 4.65	40×80 4.50		40×100 5.00		
3300	332			35×80 4.55	40×63 4.40		40×80 4.90				
3900	392			35×100 5.30	40×80 5.20		40×100 5.70				
4700	472				40×100 6.15						

Rated Ripple (Arms) at 105°C 120Hz