

Specifications

■ Ratings

Coil Ratings (per G6B Relay)

Rated voltage	5 VDC	12 VDC	24 VDC
Rated current	35.5 mA (43.4)	19.1 mA	10.7 mA (10.3)
Coil resistance	125 Ω	720 Ω	2,880 Ω
Must operate voltage	80% max. of rated voltage		
Must release voltage	10% min. of rated voltage		
Max. voltage	130% of rated voltage		
Power consumption	Approx. 200 mW		

- Note:**
1. Rated current and coil resistance were measured at a coil temperature of 23°C with a tolerance of ±10%.
 2. Operating characteristics were measured at a coil temperature of 23°C.
 3. The maximum allowable voltage is the maximum value of the allowable voltage range for the relay coil operating power supply. There is no continuous allowance.
 4. Diodes to absorb coil surge are equivalent to S5688J (reverse voltage resistance: 600 V; forward current: 1 A).
 5. The values in parentheses are for the G6B-4FB1ND and G6B-4FPND.
 6. The rated current includes the LED current.

Contact Ratings

Classification	G6B-4BND (standard), G6B-47BND (long-life)		G6B-48BND (high-reliability)	
Load	Resistive load (cosφ = 1)	Inductive load (cosφ = 0.4, L/R = 7 ms)	Resistive load (cosφ = 1)	Inductive load (cosφ = 0.4, L/R = 7 ms)
Rated load	5 A at 250 VAC, 5 A at 30 VDC	2 A at 250 VAC, 2 A at 30 VDC	2 A at 250 VAC, 2 A at 30 VDC	0.5 A at 250 VAC, 0.5 A at 30 VDC
Rated carry current	5 A		2 A	
Max. switching voltage	380 VAC, 125 VDC			
Max. switching current	5 A		2 A	
Max. switching power	1,250 VA, 150 W	500 VA, 60 W	500 VA, 60 W	125 VA, 15 W
Error rate (reference value) (see note)	10 mA at 5 VDC		1 mA at 1 VDC	

- Note:** This value fulfills the P reference value of opening/closing at a rate of 120 times per min (ambient operating environment and determination criteria according to JIS C5442).

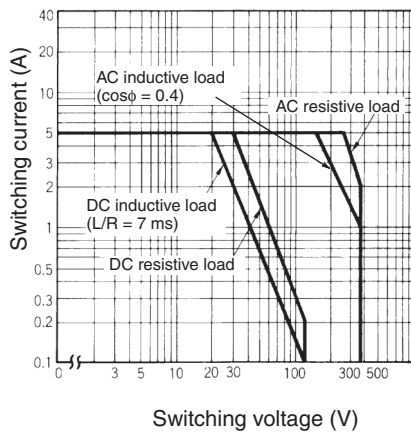
■ Characteristics

Contact resistance (see note 2)	100 mΩ max.
Operate time	10 ms max. (approx. 3 ms)
Release time	15 ms max. (approx. 4 ms)
Insulation resistance	1,000 MΩ min. (at 500 VDC)
Dielectric strength	2,000 VAC, 50/60 Hz for 1 min between coil and contacts 2,000 VAC, 50/60 Hz for 1 min between contacts of different polarity 1,000 VAC, 50/60 Hz for 1 min between contacts of same polarity 250 VAC, 50/60 Hz for 1 min between coils of different polarity
Vibration resistance	Destruction: 10 to 55 to 10 Hz, 0.75-mm single amplitude (1.5-mm double amplitude) Malfunction: 10 to 55 to 10 Hz, 0.75-mm single amplitude (1.5-mm double amplitude)
Shock resistance	Destruction: 1,000 m/s ² (approx. 100G) Malfunction: 100 m/s ² (approx. 10G)
Endurance	Mechanical: 50,000,000 operations min. (at 18,000 operations/hr) Electrical: 100,000 operations min. (at 1,800 operations/hr, rated load) 500,000 operations min. for long-life at 2 A 100,000 operations min for long-life at 5 A
Ambient temperature	Operating: -25°C to 55°C (with no icing or condensation) Storage: -25°C to 55°C (with no icing or condensation)
Ambient humidity	Operating: 35% to 85%
Weight	Approx. 75 g

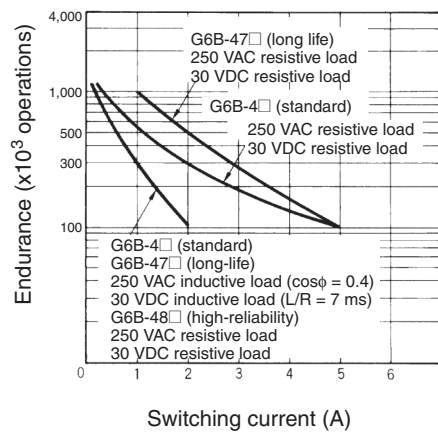
- Note:**
1. The above values are initial values.
 2. Measurement condition: 1 A at 5 VDC

Engineering Data

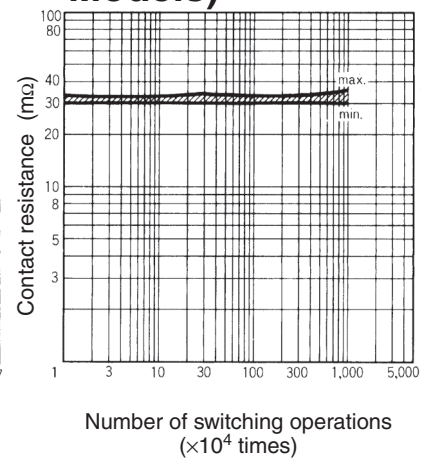
■ Maximum Switching Power



■ Endurance



■ Contact Reliability (High-reliability Models)



Note: Measurement values taken from production line samples have been plotted in graphs to provide this data. Use this data only as a guide. Relays are mass-produced, so allowances must be made for a certain amount of variation in measurement data.