

G8ND

Micro-mini dual PCB relay for automobile use (H-bridge)

**High-density design
(smallest class in the industry)**

Internal H-bridge for forward/reverse motor control

- 8-terminal dual relay. Separate coil and contact terminals.
- Even at a small size, high-wattage switching is possible due to the contacts and heat-release design. 100,000 times at 14VDC/25A (motor lock).



■ Purpose

- DC motor control for automobile parts (Door lock motor, power window motor, sunroof motor, etc.)

■ Type standard

G8ND-□□

① ② ③

	Classification	Symbol	Meaning of the symbol
①	Basic type	G8ND	Micro-mini dual relay for automobile use
②	Number of contact poles and configuration	2	Standard contact configuration 2c
③	Spec/Appropriate symbol	Blank	Standard Spec
		English character	Appropriate Spec (set individually)

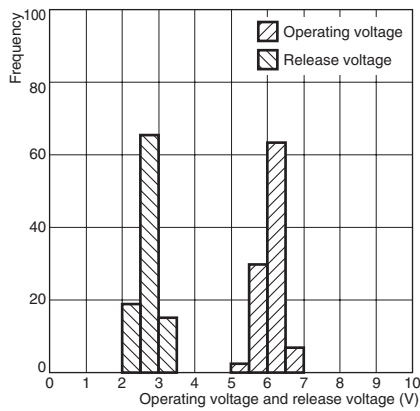
■ Ratings/Performance

Item	Type	G8ND-2	G8ND-2S	G8ND-2U
		Standard	Low operating voltage	Super low operating voltage
Coil	Rated coil voltage	12 VDC		
	Coil resistance (at 20°C)	225 Ω	180 Ω	130 Ω
	Service voltage range	10 to 16 VDC		
	Operating voltage (at 20°C)	7.2 V or less	6.5 V or less	5.5 V or less
	Release voltage (at 20°C)	1.0 V or more		
	Max value of rated coil voltage (5A)	14 VDC (continuous) 16 VDC at 5 min	12 VDC (continuous) 16 VDC at 15 min	16 VDC at 3 min
Contact	Contact configuration	1c × 2 (SPDT × 2) (H-Bridge)		
	Contact material	AgSn type (non-cadmium)		
	Rated load	14 VDC 25 A Motor load		
	Max switching current	30 A		
Endurance (Lifetime)	Mechanical	1,000,000 times		
	Electrical (Rated load)	100,000 times		
Mechanical	Impact resistance	Malfun- ction	100 m/s ²	
		De- struction	1,000 m/s ²	
	Vibration resistance	Malfun- ction	10~55 Hz, Peak to peak: 1.5 mm	
		De- struction	10~55 Hz, Peak to peak: 1.5 mm	
Ambient temperature range		-40~+85°C		
Weight		About 7.5 g		

Reference data

Operating voltage/Release voltage

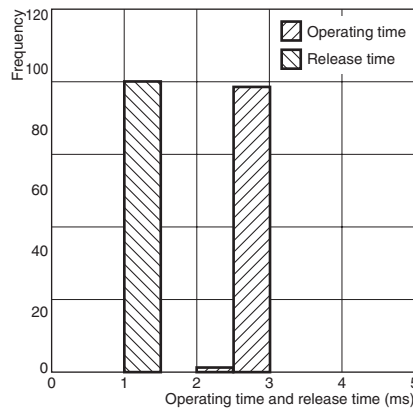
Sample: G8ND-2 12 VDC 225 Ω 100 pcs



Operating time/Release time

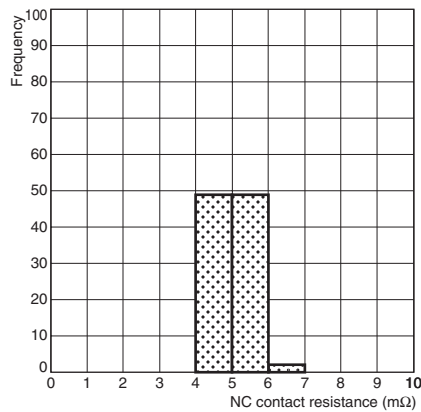
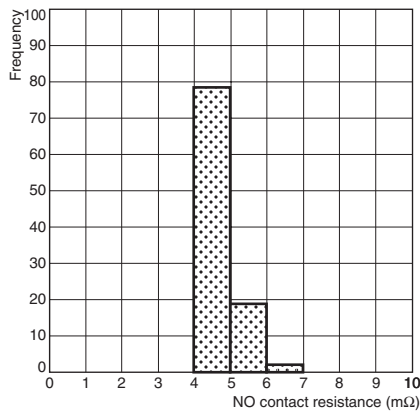
Sample: G8ND-2 12 VDC 225 Ω 100 pcs

Diode to absorb coil surge, without resistor



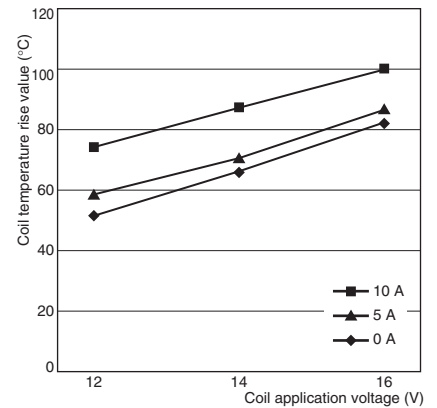
Contact resistance

Sample: G8ND-2 12 VDC 225 Ω 100 pcs



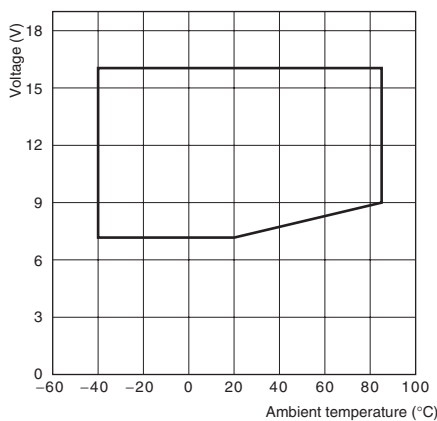
Coil temperature rise

Sample: G8ND-2 12 VDC 180 Ω 5 pcs

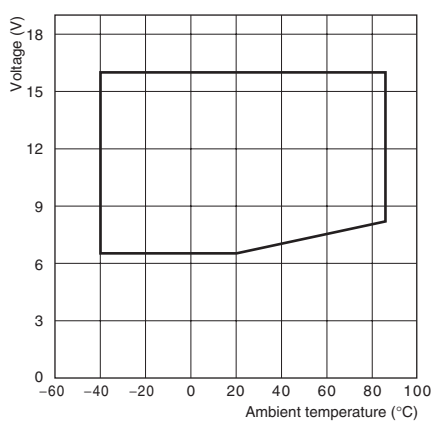


Ambient temperature and service voltage range (Cold start)

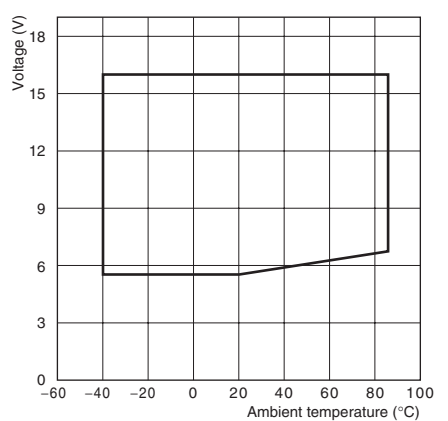
G8ND-2



G8ND-2S



G8ND-2U



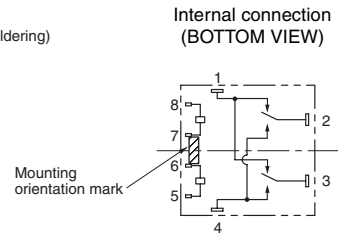
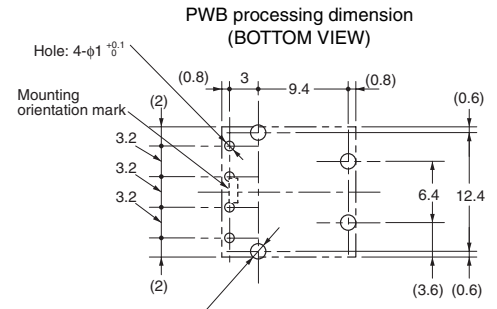
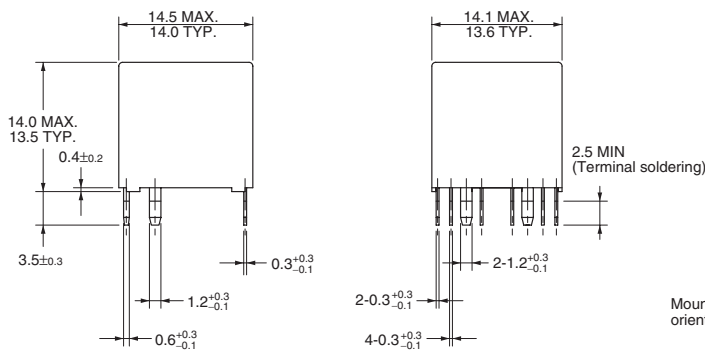
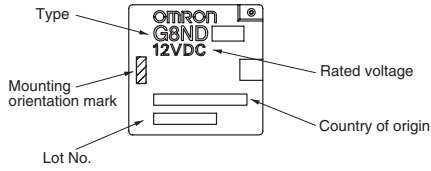
Reference data

Electrical endurance (Lifetime)

Spec	Application/Load	Load current	Switching frequency	Switching time
G8ND-2S	Power window motor	Motor lock current (Input 25 A/Breaking 25 A)	On1 s/Off10 s	100,000
G8ND-2S	Power window motor	Motor lock current (Input 25 A/Breaking 25 A)	On0.1 s/Off4.9 s	200,000

Contour dimension (Unit: mm)

G8ND



* Tolerance unless otherwise specified
 Less than 1 mm: ±0.1 mm
 Less than 1~3 mm: ±0.2 mm
 3 mm or more: ±0.3 mm