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# G8NW

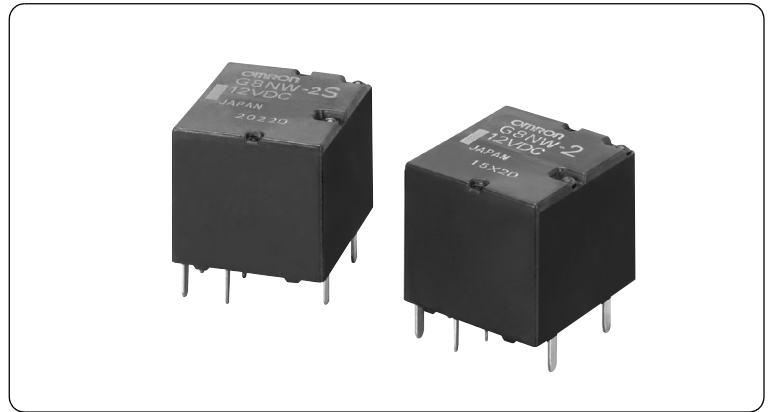
Micro-mini dual PCB relay for automobile use (2 independent circuits)

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

**Half-size in comparison  
with the existing type**

(Omron G8QW)

- 2 single, independent relays in 1 case.
- Optimum for reverse motor control for a window motor, wiper motor, etc.



## ■ Purpose

- DC motor control for automobile parts (Door lock motor, power window motor, sunroof motor, etc.)
- Flasher lamp (indicator or hazard)

## ■ Type standard

G8NW-□□

① ②③

	Classification	Symbol	Meaning of the symbol
①	Basic type	G8NW	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)

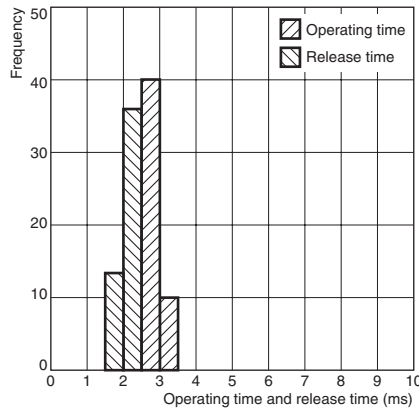
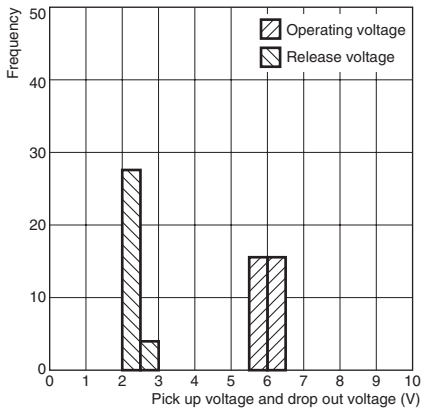
## ■ Ratings/Performance

Item	Type	G8NW-2	G8NW-2S	G8NW-2L	G8NW-2H	G8NW-2U	G8NW-2F
		Standard	Low operating voltage	High heat resistance	High heat resistance and Low operating voltage	Super low operating voltage	For flasher lamp
Coil	Rated coil voltage	12 VDC					
	Coil resistance (at 20°C)	225 Ω	180 Ω	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	7.2 V or less	6.5 V or less	5.5 V or less	7.2 V or less
	Release voltage (at 20°C)	1.0 V or more				0.8 V or more	
	Max value of rated coil voltage (5A)	14 VDC (continuous) 16 VDC at 15 min	12 VDC (continuous) 16 VDC at 5 min	16 VDC (continuous)	14 VDC (continuous) 16 VDC at 15 min	16 VDC at 3 min	16 VDC (a fleeting moment) 85 times/min
Contact	Contact configuration	1c × 2 (SPDT × 2)					
	Contact material	AgSn type (non-cadmium)					PdRu alloy
	Rated load	14 VDC 25 A Motor load					54 W lamp 85 times/min Polarized (No. 3 terminal+)
	Max switching current	30 A					
Endurance (Lifetime)	Mechanical	1,000,000 times					10,000,000 times
	Electrical (Rated load)	100,000 times					2000 hrs
Mechanical	Impact resistance	Malfunction	100 m/s <sup>2</sup>				
		Destruction	1,000 m/s <sup>2</sup>				
	Vibration resistance	Malfunction	10~55 Hz, Peak to peak: 1.5 mm				
		Destruction	10~55 Hz, Peak to peak: 1.5 mm				
Ambient temperature range		-40~+85°C		-40~+105°C		-40~+85°C	
Weight		About 8.0 g					

### Reference data

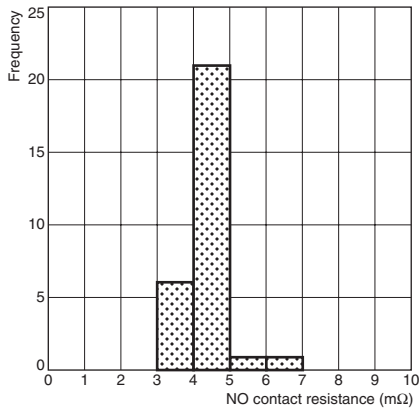
● Operating voltage/Release voltage    ● Operating time/Release time

Sample: G8NW-2S 12 VDC 225 Ω 30 pcs    Sample: G8NW-2S 12 VDC 225 Ω 50 pcs  
 Diode to absorb coil surge, without resistor



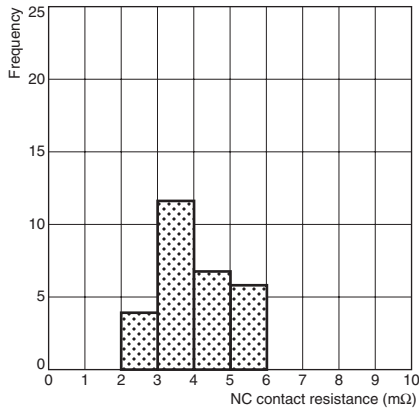
● Contact resistance

Sample: G8NW-2S 12 VDC 180 Ω 30 pcs

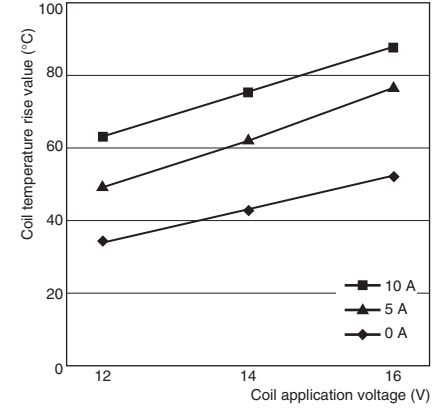


● Coil temperature rise

Sample: G8NW-2S 12 VDC 180 Ω 30 pcs

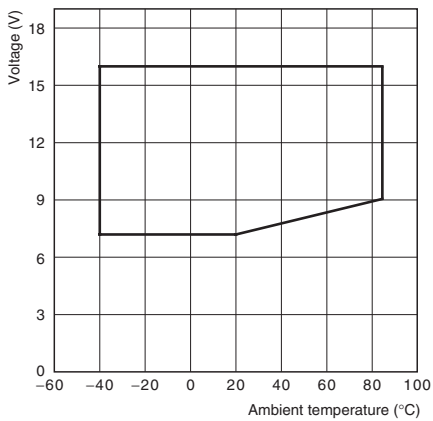


Sample: G8NW-2S 12 VDC 180 Ω 3 pcs

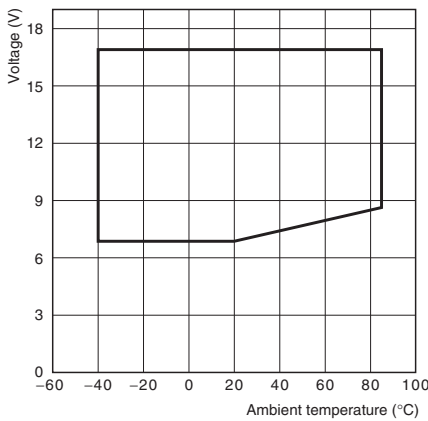


● Ambient temperature and service voltage range (Cold start)

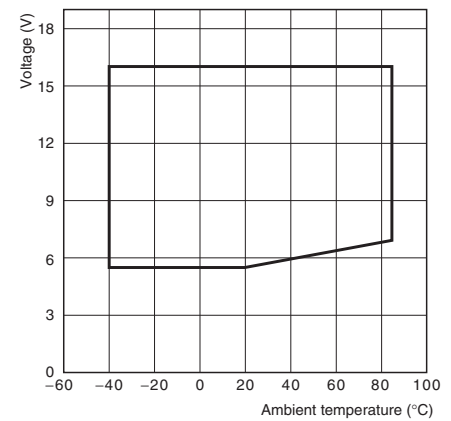
G8NW-2



G8NW-2S



G8NW-2U



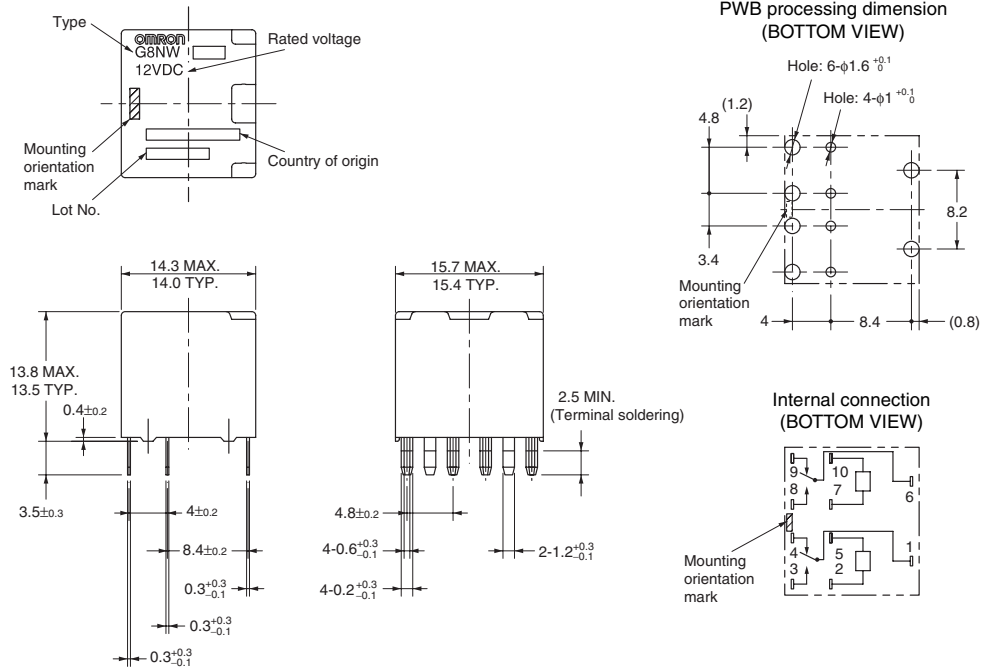
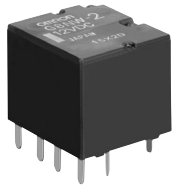
### Reference data

#### Electrical endurance (Lifetime)

Spec	Application/Load	Load current	Switching frequency	Switching time
G8NW-2H	Power window motor	Motor lock current (Input 31 A/Breaking 27 A)	On1 s/Off9 s	60,000
G8NW-2F	Hazard lamp 110.4 W	Input 8.3 A Steady 4 A	On0.35 s/Off0.3 s	510,000

### Contour dimension (Unit: mm)

G8NW



\* 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

Relay for PCB