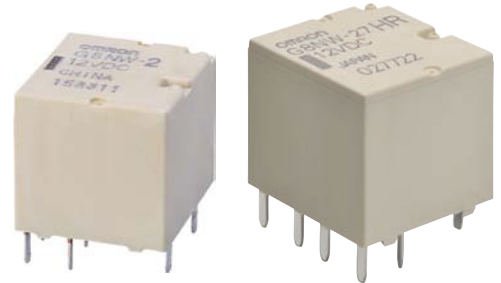


Small power twin PCB relay for Automotive and DC 12 V applications

# G8NW

## Small twin relay for flexible applications

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



### ■ Purpose

- DC 12 V motor/resistive application control
- Automotive DC applications (Door lock, Power window, Wiper, Washer, Sunroof, etc.)

### ■ Type standard

G8NW-□□□□  
           1  2  3  4

**1. Number of Contact Poles**

2: 2-pole

**2. Protective structure**

Blank: Plastic sealed

7 : Flux tight (Open vent hole)

**3. Function**

Blank: Standard

L : High heat resistance

H : High heat resistance and Low operating voltage

U : Ultralow operating voltage

**4. Special function**

Blank : Standard

R : Pin in Paste reflow compliant

English character: Special function

## ■ Ratings/Performance

Item		Model		G8NW-2 DC12	G8NW-2L DC12 G8NW-27LR DC12	G8NW-2H DC12 G8NW-27HR DC12	G8NW-2U DC12 G8NW-27UR DC12
		Standard		High heat resistance	High heat resistance and 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					0.8 V or more
	Max value of rated coil voltage (5 A)	14 VDC (continuous) 16 VDC at 15 min		16 VDC (continuous)		14 VDC (continuous) 16 VDC at 15 min	
Contact	Contact configuration	1c × 2 (SPDT × 2)					
	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	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					
Minimum packing unit (Tube packing)		1,080 pcs. / box (36 pcs. × 30 tubes)					

## Reference data

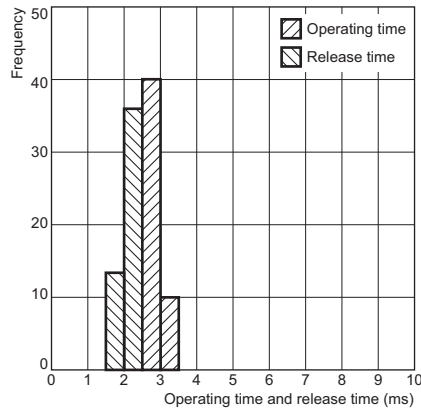
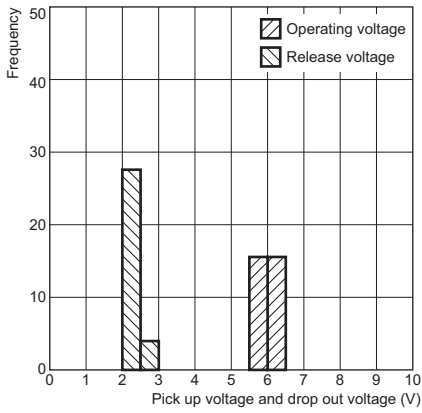
● **Operating voltage/Release voltage**

Sample: G8NW-2H 12 VDC 180 Ω 30 pcs

● **Operating time/Release time**

Sample: G8NW-2H 12 VDC 180 Ω 50 pcs

Diode to absorb coil surge, without resistor



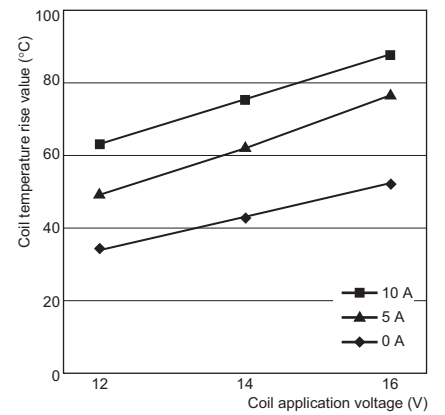
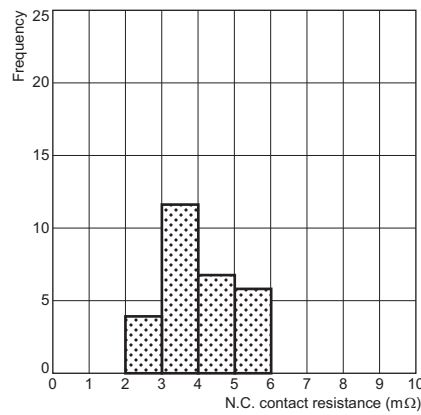
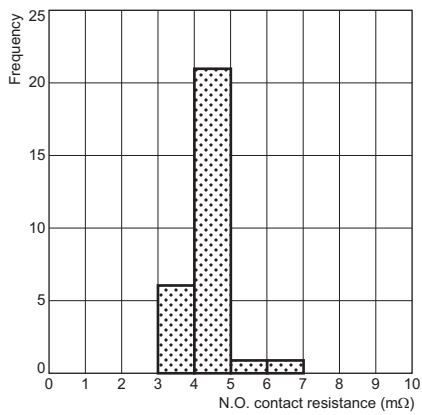
● **Contact resistance**

Sample: G8NW-2H 12 VDC 180 Ω 30 pcs

● **Coil temperature rise**

Sample: G8NW-2H 12 VDC 180 Ω 30 pcs

Sample: G8NW-2H 12 VDC 180 Ω 3 pcs

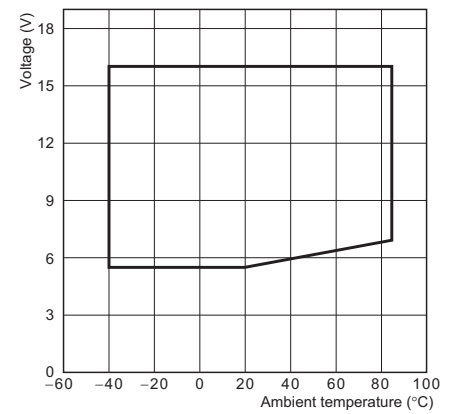
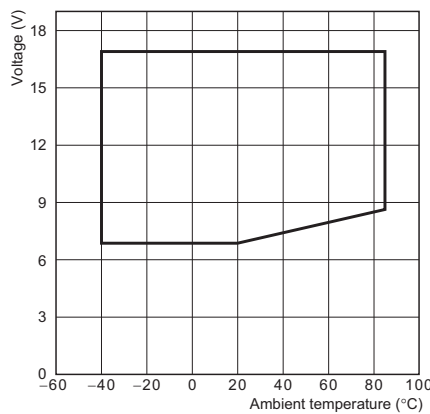
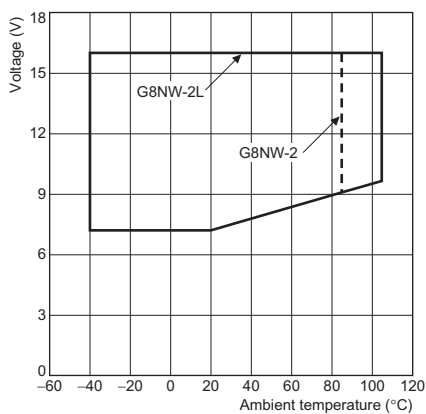


● **Ambient temperature and service voltage range (Cold start)**

G8NW-2, G8NW-2L

G8NW-2H

G8NW-2U



● **Electrical endurance (Lifetime)**

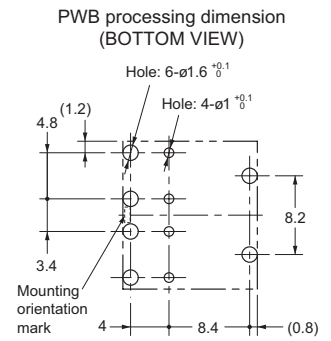
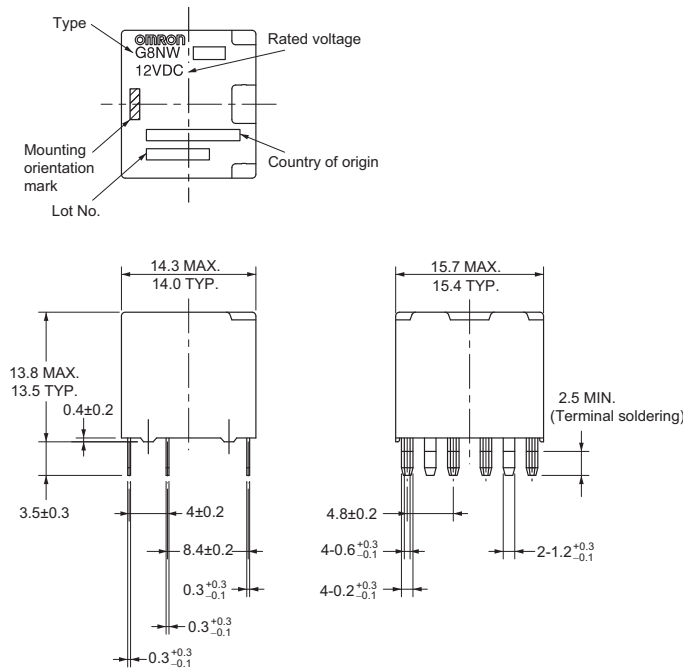
Spec	Application/Load	Load current	Switching frequency	Switching time
G8NW-2H	Power window motor	Motor lock current (Input 31 A/Breaking 27 A)	On1 s/Off9 s	60,000

■ Contour dimension

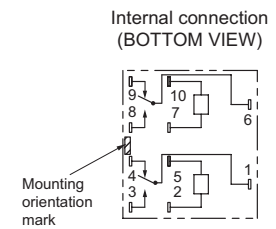
(Unit: mm)

G8NW

Plastic sealed



\*Please study & choose other appropriate hole diameters if confirmed the diameter values recommended above don't work with the soldering process.



TOLERANCE UNLESS OTHERWISE SPECIFIED

Less than 1 mm : ±0.1 mm

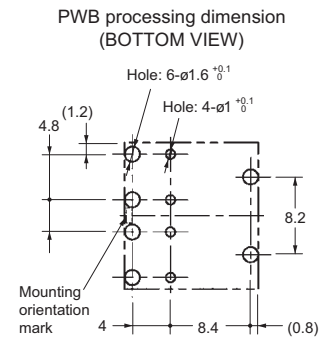
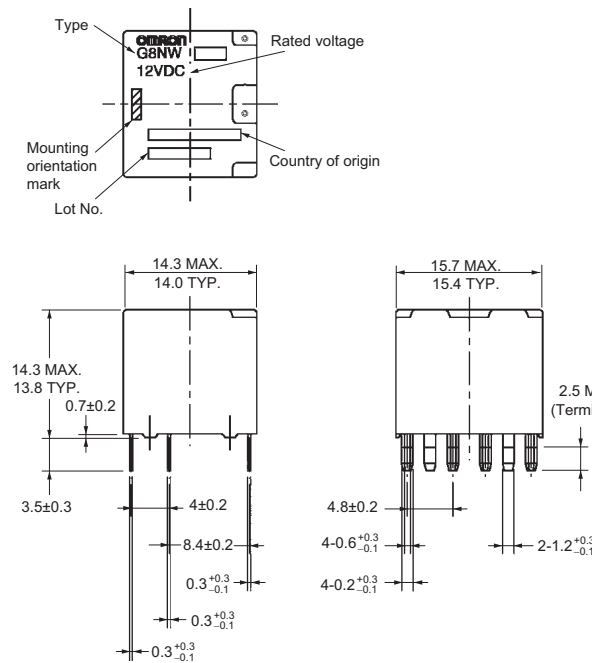
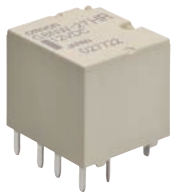
1 to 3 mm : ±0.2 mm

More than 3 mm : ±0.3 mm

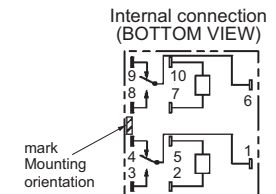
( ) is reference dimension

G8NW

Pin in Paste reflow compliant



\*Please study & choose other appropriate hole diameters if confirmed the diameter values recommended above don't work with the soldering process.



TOLERANCE UNLESS OTHERWISE SPECIFIED

Less than 1 mm : ±0.1 mm

1 to 3 mm : ±0.2 mm

More than 3 mm : ±0.3 mm

( ) is reference dimension

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## ■Precautions

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- Please refer to “Safety Precautions for All Automotive Relays” for correct use.

Please check each region's Terms & Conditions by region website.

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