

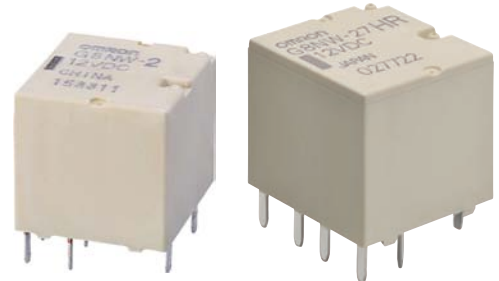
Small power twin PCB relay for Automotive and DC 12 V applications

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

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
Item						
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	16 VDC at 3 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 ²			
		Destruction	1,000 m/s ²			
	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

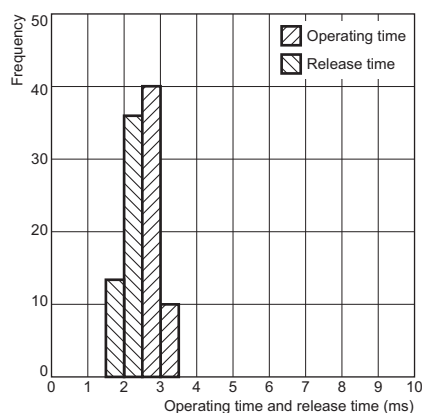
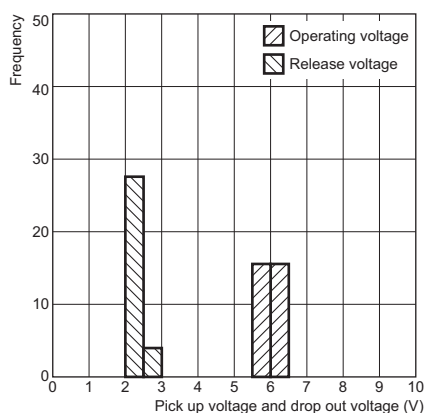
Operating voltage/Release voltage

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



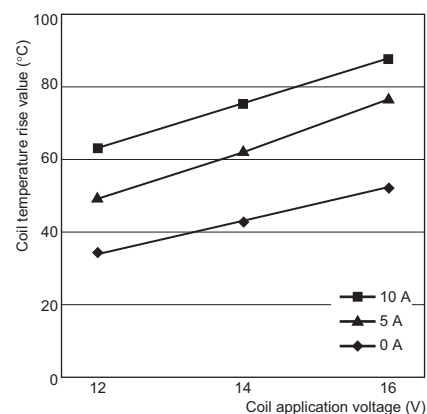
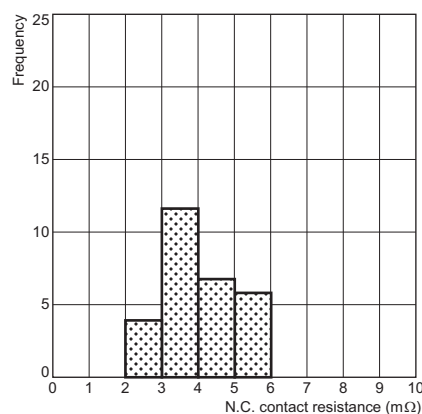
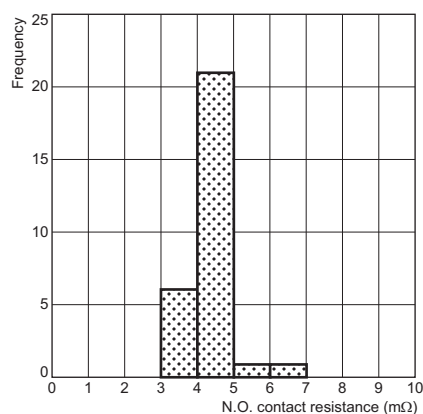
Contact resistance

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

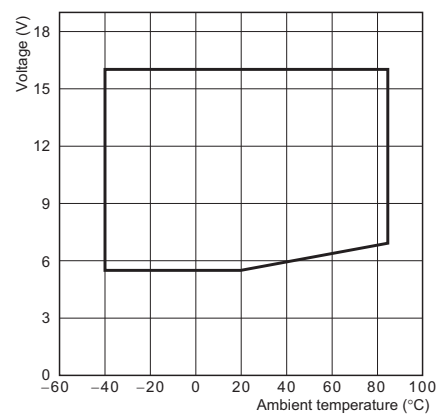
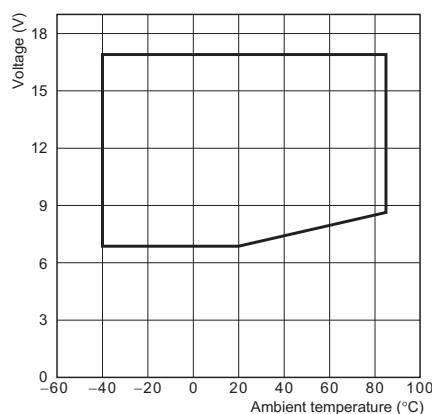
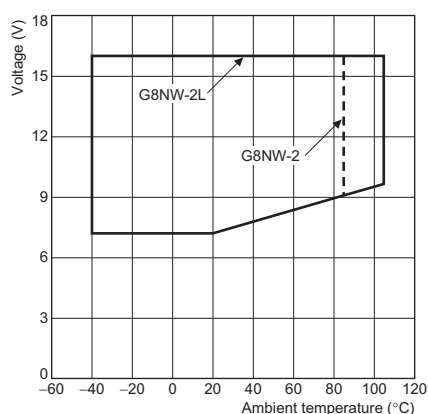


Ambient temperature and service voltage range (Cold start)

G8NW-2, G8NW-2L

G8NW-2H

G8NW-2U



Electrical endurance (Lifetime)

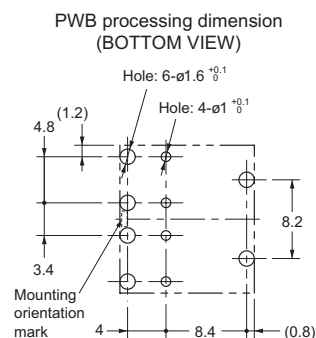
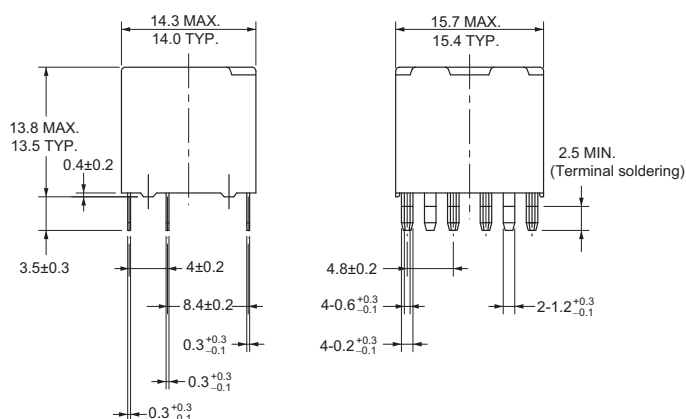
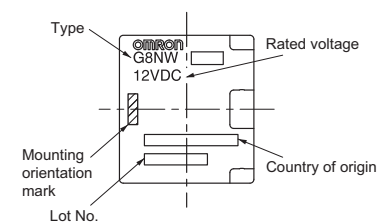
Spec	Application/Load	Load current	Switching frequency	Switching time
G8NW-2H	Power window motor	Motor lock current (Input 31 A/Breaking 27 A)	On1 s/Off9 s	60,000

■ Contour dimension

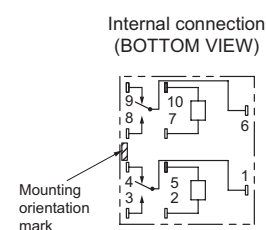
(Unit: mm)

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

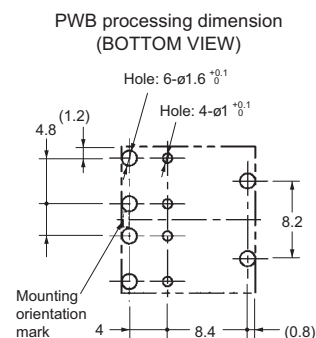
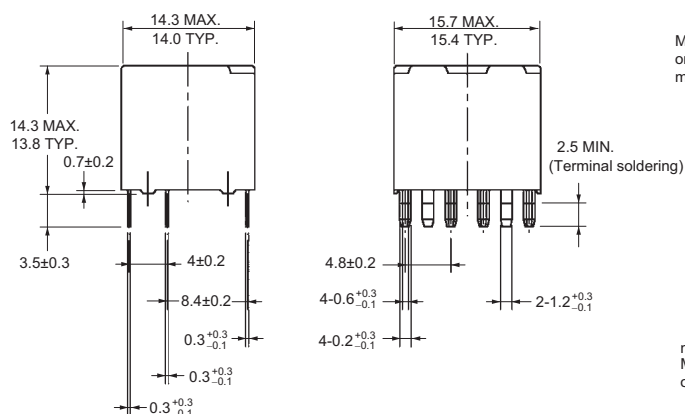
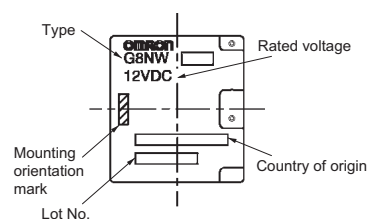
1 to 3 mm :±0.2 mm

More than 3 mm :±0.3 mm

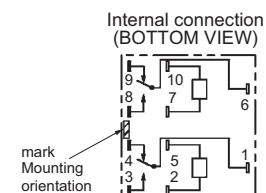
() is reference dimension

G8NW

Pin in Paste reflow compliant



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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

■Precautions

- 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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