

### Features

- DC 24V specification.
- High capacity specification (35A).
- Covered MINI ISO by high capacity type.
- Achieve low heat generation and improve connection confidence to the connector.
- SPST and SPDT arrangements.



## Specifications

### Type

Part Number		Contact Type
Unsealed	Sealed	
G8HN-1A2T-RJ/DJ (DC12V/DC24V)	G8HN-1A4T-RJ/DJ (DC12V/DC24V)	SPST Standard
G8HN-1C2T-RJ/DJ (DC12V/DC24V)	G8HN-1C4T-RJ/DJ (DC12V/DC24V)	SPDT Standard
G8HN-1A2T-RH/DH (DC12V)	G8HN-1A4T-RH/DH (DC12V)	SPST High capacity
G8HN-1C2T-RH/DH (DC12V)	G8HN-1C4T-RH/DH (DC12V)	SPDT High capacity

## Contact Data

Arrangement			SPST,SPDT
Contact material			Silver tin oxide (cadmium free)
Contact voltage drop	Standard		Less than 200 mV at 20A
	High capacity		Less than 200 mV at 35A
Max. Switching Current	Standard	12VDC	N.O. side: Inrush 100A, Steady 20A N.C. side: Inrush 50A, Steady 10A
		24VDC	N.O. side: Inrush 30A, Steady 10A N.C. side: Inrush 15A, Steady 5A
	High capacity	12VDC	N.O. side : Inrush 120A, Steady 35A N.C. side : Inrush 40A, Steady 20A

## Coil Data

### With Surge Absorber Resistor

Part Number	G8HN-1A2T-RJ G8HN-1C2T-RJ		G8HN-1A2T-RH G8HN-1C2T-RH
	G8HN-1A4T-RJ G8HN-1C4T-RJ		G8HN-1A4T-RH G8HN-1C4T-RH
	12VDC	24VDC	12VDC
Rated coil resistance at 20°C	95.9+/-10%Ω	315.1+/-10%Ω	124.2+/-10%Ω
Rated coil current at 20°C	125.1mA+/-10%	76.2mA+/-10%	96.6mA+/-10%

### With Surge Absorber Diode

Part Number	G8HN-1A2T-DJ G8HN-1C2T-DJ		G8HN-1A2T-DH G8HN-1C2T-DH
	G8HN-1A4T-DJ G8HN-1C4T-DJ		G8HN-1A4T-DH G8HN-1C4T-DH
	12VDC	24VDC	12VDC
Rated coil resistance at 20°C	105.0±10%Ω	340.0+/-10%Ω	140.0+/-10%Ω
Rated coil current at 20°C	114.3mA+/-10%	70.6mA+/-10%	85.7mA+/-10%

## Characteristics

Part Number		G8HN-1A2T-DJ/RJ G8HN-1C2T-DJ/RJ		G8HN-1A2T-DH/RH G8HN-1C2T-DH/RH
		G8HN-1A4T-DJ/RJ G8HN-1C4T-DJ/RJ		G8HN-1A4T-DH/RH G8HN-1C4T-DH/RH
		12VDC	24VDC	12VDC
Pull-in voltage at 20°C		8V max.	16V max.	8.0V max.
Drop-out voltage at 20°C		1.2V min.	2.4V min.	1.2V min.
Operating time		10ms max.		
Releasing time		10ms max.		
Insulation resistance		10MΩ min (at 500 VDC)		
Dielectric strength		500VAC, 50 / 60 Hz for 1 minute between coil and contacts 500VAC, 50 / 60 Hz for 1 minute between contacts of different polarity 500VAC, 50 / 60 Hz for 1 minute between contacts of same polarity		
Vibration	Mechanical durability	10 ~ 500 Hz, 44.1 m/s <sup>2</sup> mm double amplitude		
	Malfunction durability	10 ~ 2,000 Hz, 44.1 m/s <sup>2</sup>		
Shock	Mechanical durability	100 m/s <sup>2</sup> min		
	Malfunction durability	1000 m/s <sup>2</sup> min		
Ambient temperature Operating/storage		-40 to 125°C		
Humidity		5 to 85%RH		
Service life	Mechanical	1,000,000 operations (Frequency: 18,000 operations/hour)		
	Electrical	100,000 operations (Frequency: 1,800 operations/hour)		
Weight		Approx. 20.0g		

## Appication Examples

■ Head light lamp

■ Defogger

■ Blower fan

### ■ LIFE TEST I (Blower motor: G8HN-1C2T-DJ 12VDC)

#### Test item

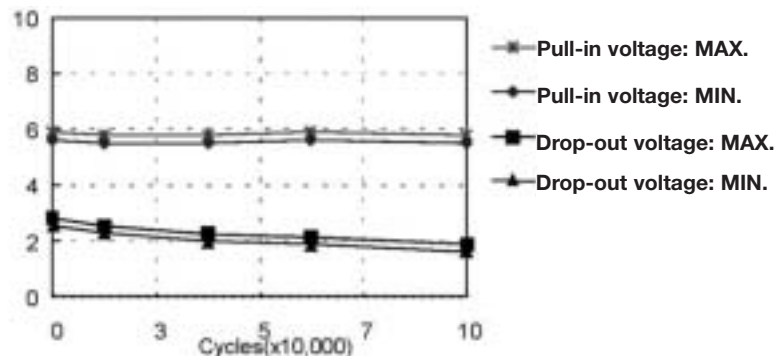
14VDC

Inrush 64A Steady 22A

Frequency: 1sec ON/ 4sec OFF

Cycle: 500,000

Shift of pull-in and drop-out voltage



Characteristics	Specification		Before the test	After the test
N.O. Voltage drop between terminals	50mV at 20A MAX.	MAX.	37.0	65.2
		MIN.	31.0	35.1
		AVE.	33.06	45.84
Insulation Resistance	10MΩ MIN.		1000 MIN.	1000 MIN.
Structure	No abnormal condition		Good	Good

### ■ LIFE TEST II (Halogen lamp: G8HN-1C2T-DJ 12VDC)

#### Test item

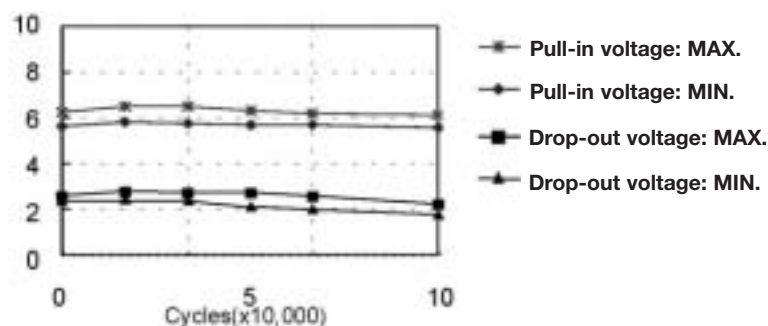
164VDC

Inrush 135A Steady 21A

Frequency: 2sec ON/ 13sec OFF

Cycle: 200,000

Shift of pull-in and drop-out voltage



Characteristics	Specification		Before the test	After the test
N.O. Voltage drop between terminals	50mV at 20A MAX.	MAX.	34.5	54.2
		MIN.	27.5	35.7
		AVE.	32.06	44.38
Insulation Resistance	10MΩ MIN.		1000 MIN.	1000 MIN.
Structure	No abnormal condition		Good	Good

# Engineering Data

## Malfunctioning vibration

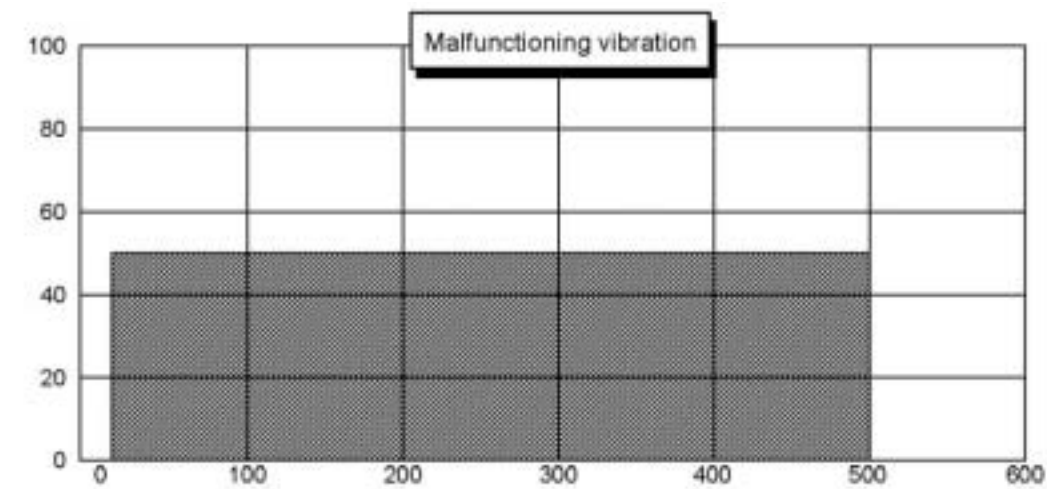
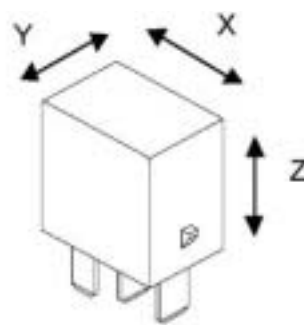
### Test condition

**Frequency:** 10Hz-500Hz-10Hz

**Acceleration:** 43.1m/s<sup>2</sup>

**Direction of vibration:** see right diagram

**Detection level:** Contacts must not open 1ms or longer



## Malfunctioning Shock

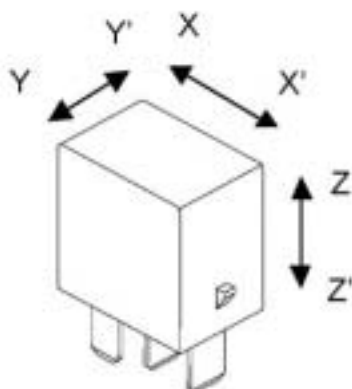
### Test condition

**Shock acceleration:** 100m/s<sup>2</sup> to 1000 m/s<sup>2</sup>

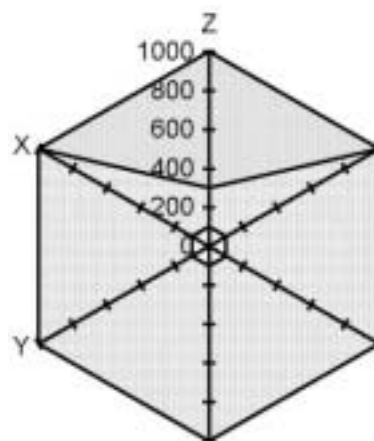
**Detection level:** Contact must not open 1ms or more with 100m/s<sup>2</sup>

N.O. Contact – must not open with rated coil voltage

N.C. Contact – must not open without energizing



## MALFUNCTIONING SHOCK

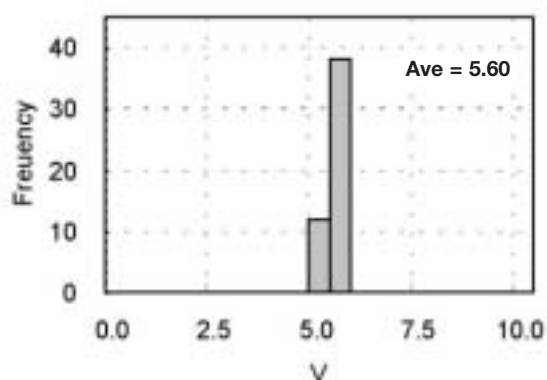


☐ N.O.side contact  
 ☐ N.C.side contact  
 ☐ Standard

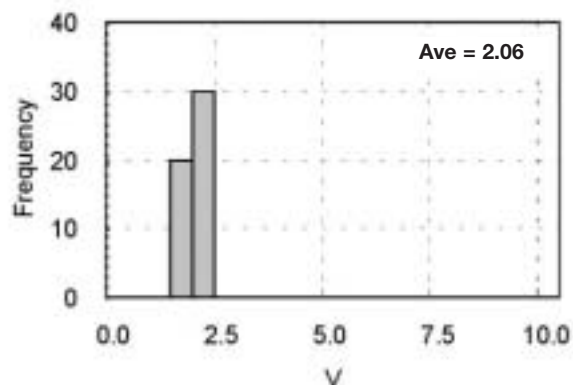
## General Characteristic Data

Sample: G8HN-1C2T-DJ 50pcs.

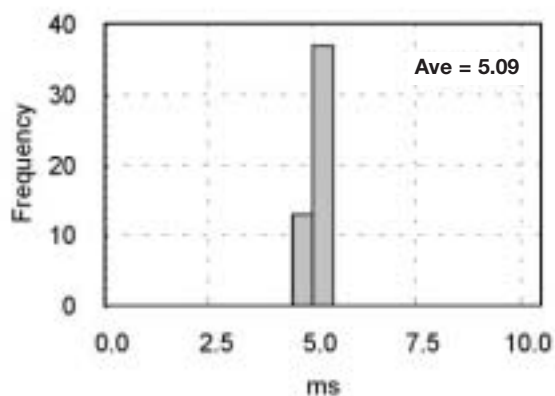
Distribution of pull-in voltage



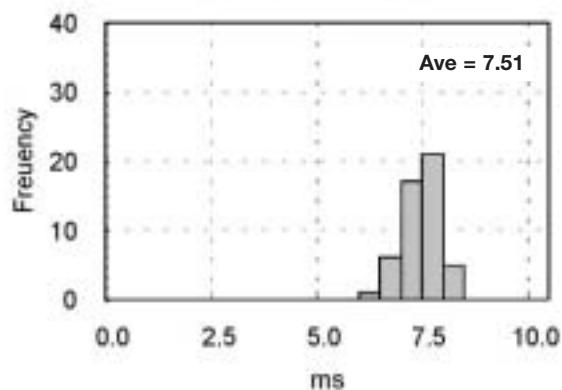
Distribution of drop-out voltage



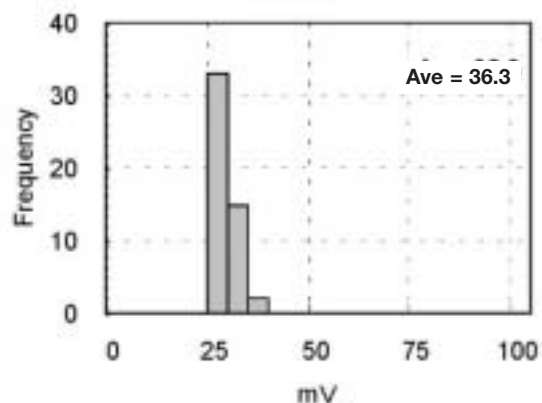
Distribution of operating time



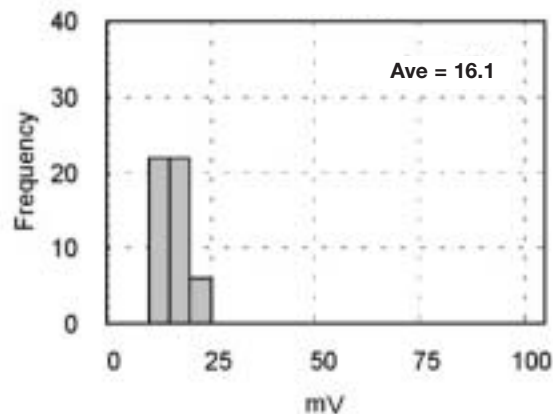
Distribution of releasing time



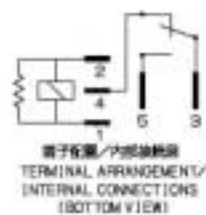
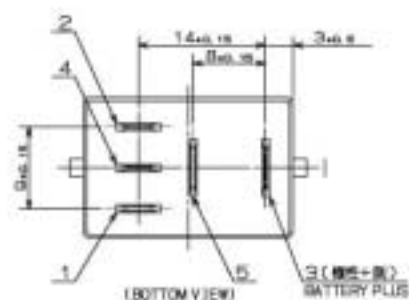
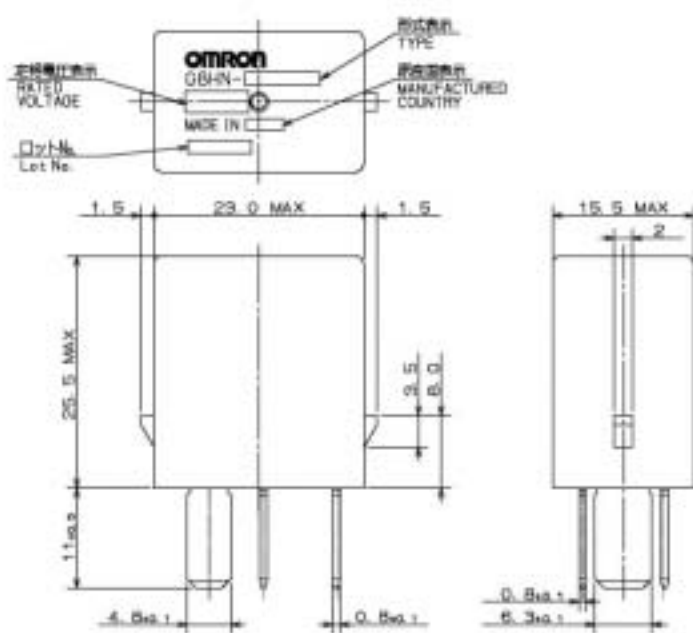
Distribution of N.O. voltage drop between terminals



Distribution of N.C. voltage drop between terminals



## Dimensions



サーフ吸収抵抗まではダイオード付  
WITH SURGE ABSORBER  
RESISTOR ON DIODE

●指定公差は、すべて±0.1mmとする。  
●ALL TOLERANCE ARE ±0.1mm  
UNLESS OTHERWISE INDICATED.

**ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.**

To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

Cat. No. G8HN-J In the interest of product improvement, specifications are subject to change without notice.

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