

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 ² mm double amplitude	
	Malfunction durability	10 ~ 2,000 Hz, 44.1 m/s ²	
Shock	Mechanical durability	100 m/s ² min	
	Malfunction durability	1000 m/s ² 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		

Application Examples

- Head light lamp
- Blower fan

- Defogger

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

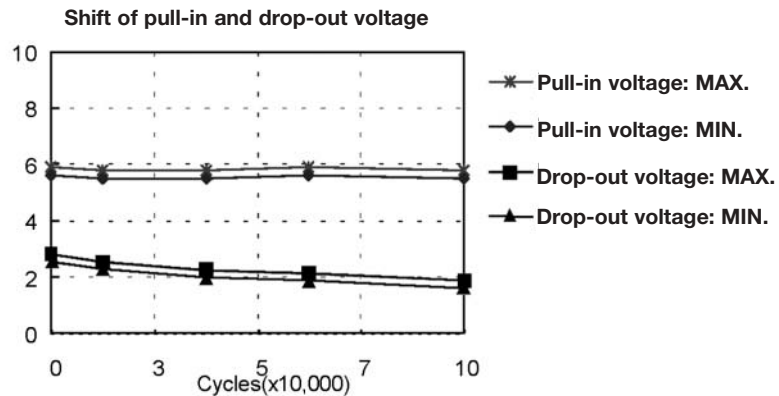
Test item

14VDC

Inrush 64A Steady 22A

Frequency: 1sec ON/ 4sec OFF

Cycle: 500,000



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)

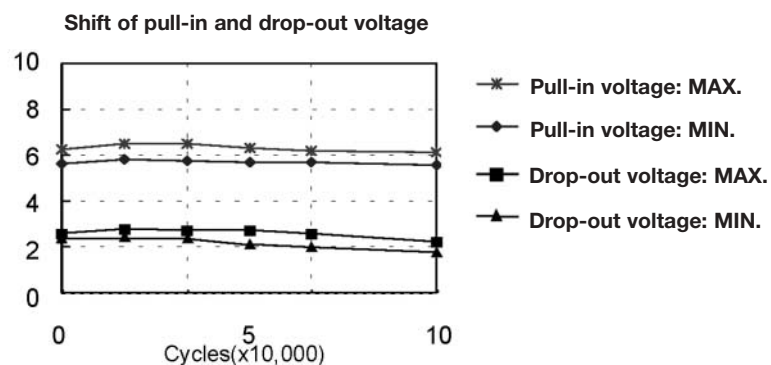
Test item

164VDC

Inrush 135A Steady 21A

Frequency: 2sec ON/ 13sec OFF

Cycle: 200,000



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

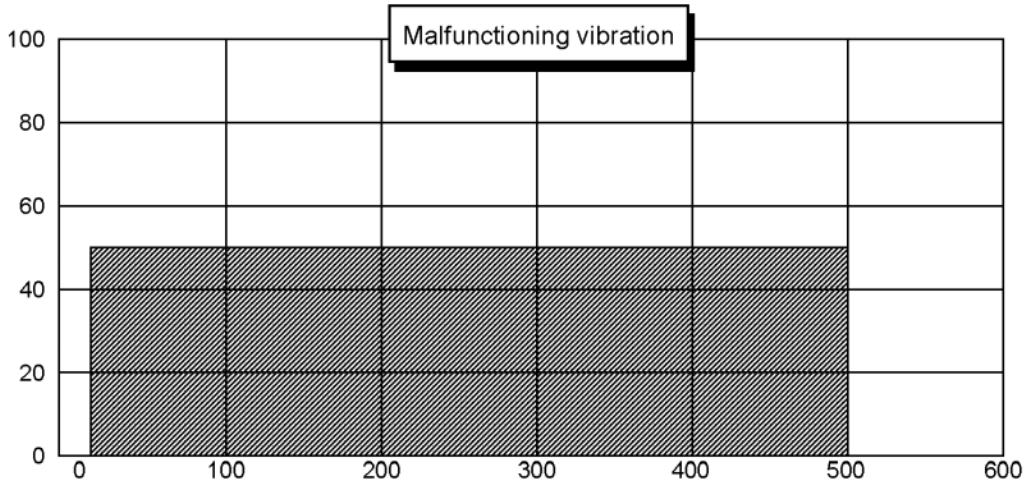
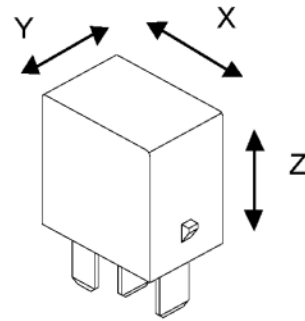
Test condition

Frequency: 10Hz-500Hz-10Hz

Acceleration: 43.1m/s²

Direction of vibration: see right diagram

Detection level: Contacts must not open 1ms or longer



Malfunctioning Shock

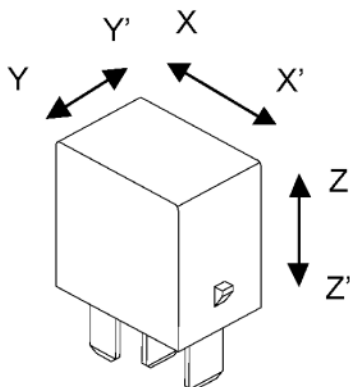
Test condition

Shock acceleration: 100m/s² to 1000 m/s²

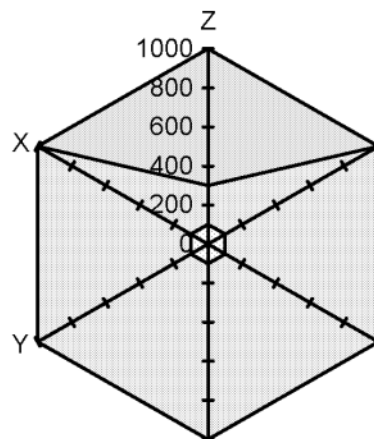
Detection level: Contact must not open 1ms or more with 100m/s²

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

N.C. Contact – must not open without energizing



MALFUNCTIONING SHOCK

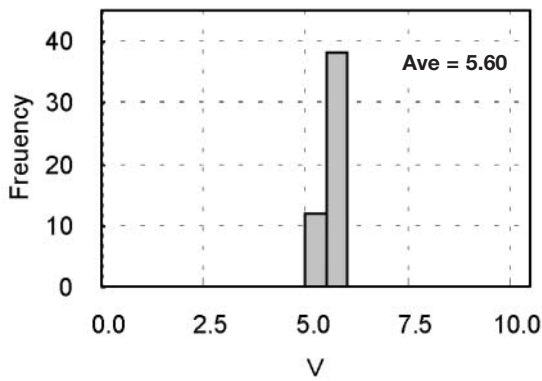


N.O.side contact
 N.C.side contact
 Standard

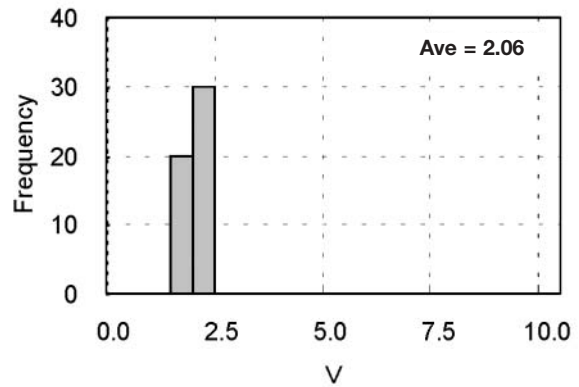
General Characteristic Data

Sample: G8HN-1C2T-DJ 50pcs.

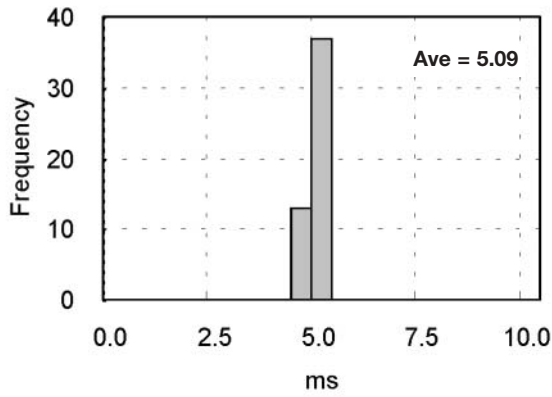
Distribution of pull-in voltage



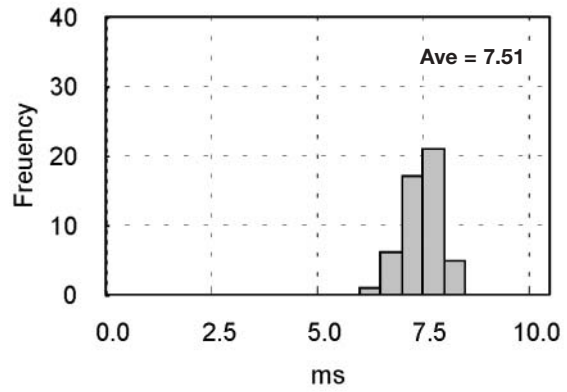
Distribution of drop-out voltage



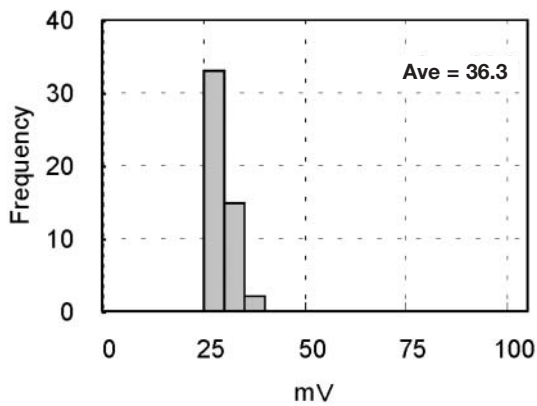
Distribution of operating time



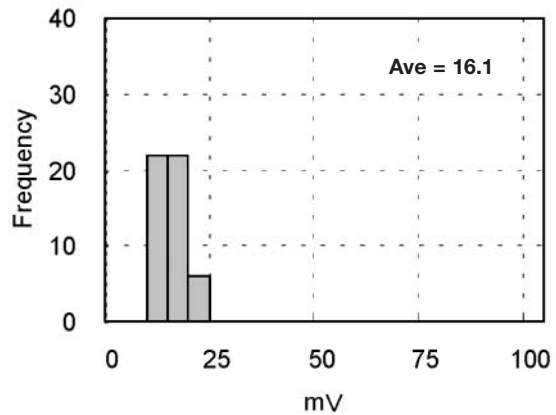
Distribution of releasing time



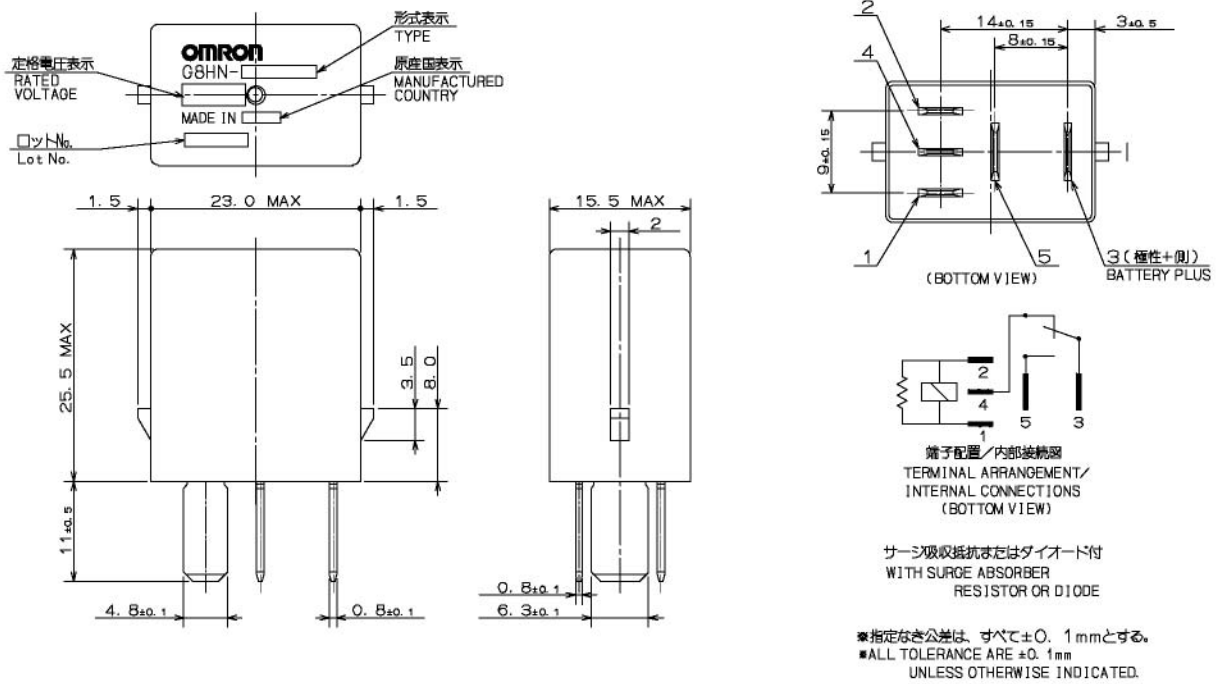
Distribution of N.O. voltage drop between terminals



Distribution of N.C. voltage drop between terminals



Dimensions



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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