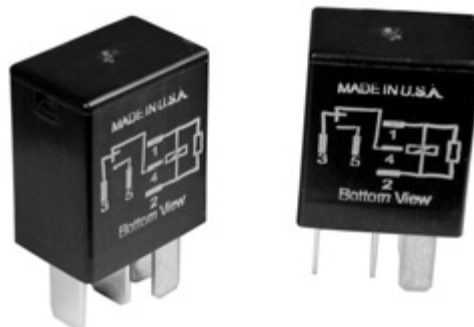


# Micro ISO Automotive Relay G8HN

- SPST/SPDT contacts.
- Fully automated assembly.
- Lower power consumption than G8H.
- Environment-friendly and light weight.
- Made in USA.



## Ordering Information

Description	Model
Standard SPST type	G8HN-1A2T-R
SPST type with unplated terminals	G8HN-1A2T-H62-R
Standard SPDT type	G8HN-1C2T-R

## ■ Typical Applications

- Blower fan motor
- Head lamps
- Fuel pump
- ABS
- Horn
- Door locks
- Wipers
- Electric sunroof

# Specifications

## ■ Coil Ratings (at 20°C)

Model	Rated voltage	Coil resistance ±20%	Coil resistance w/680 Ω suppression ±10%	Nominal power consumption	Pull in voltage	Dropout voltage
G8HN-1A2T-R	12 VDC	110 Ω	95 Ω	1309 mW	< 8.0 V	> 0.7 V
G8HN-1A2T-H62					< 7.0 V	> 0.5 V
G8HN-1C2T-R					< 8.5 V	> 1.0 V

## ■ Contact Data

Item	Description
Max. switching current	Inrush 60 A (NO), 30 A (NC), steady 20 A (NO), 10 A (NC)
Max. switching voltage	16 V
Min. carry/switching current	1 A
Contact material	Silver tin oxide (cadmium free)

## ■ Characteristics

Max. initial contact voltage drop	150 mV @ 20 A (NO), 175 mV @ 10 A (NC)	
Operate time	20 ms max. @ 12 VDC	
Release time	10 ms max. (see note)	
Bounce time	Operate	5 ms max.
	Release	10 ms. max.
Switching frequency	Mechanical	18,000 operations per hour
Insulation resistance	20 MΩ min (at 500 VDC)	
Dielectric strength	1.0 mA max. leakage at 440 VAC, 50 - 60 Hz for 1 minute between coil and contacts and between contacts (10 MΩ for SPST)	
Vibration	Mechanical durability	20 - 500 Hz, 43.1 m/s <sup>2</sup>
	Malfuction durability	20 - 500 Hz, 43.1 m/s <sup>2</sup>
Shock	Mechanical durability	1000 m/s <sup>2</sup>
	Malfuction durability	100 m/s <sup>2</sup>
Ambient operating temperature	-40°C to 125°C	
Humidity	45% to 85% RH	
Service life	Mechanical	10,000,000 operations min.
	Electrical	100,000 operations min. (load dependent)
Weight	20.0g (approx.)	

**Note:** Typical data includes coil suppression. Release times may decrease without coil suppression.

## ■ Characteristic Data

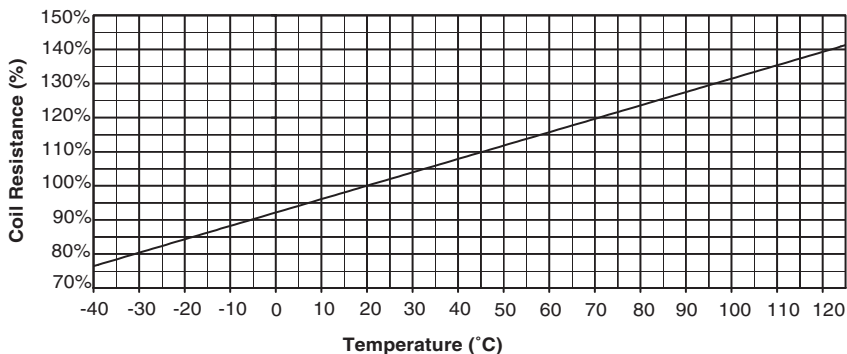
### Durability

Model	Load type	Current	Cycles tested
G8HN-1C2T-R	Lamp load	100 A inrush, 20 A steady state	300,000
	Inductive load	25 A and 40 A inrush, 20 A steady state	300,000
	Wiper load	17 A inrush, 8 A steady state	850,000

### Overcurrent Test

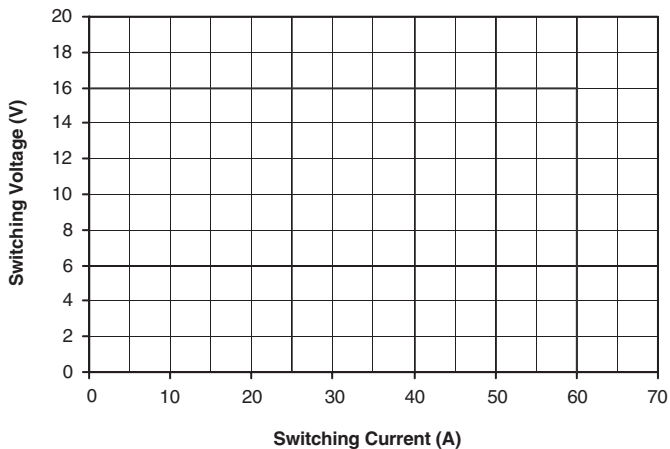
Model	Current	Duration
G8HN-1A2T-R	80 A	10 sec., 14 V, 80C
	50 A	30 sec., 14 V, 80C

### Normalized Coil Resistance vs. Temperature (20°C reference)

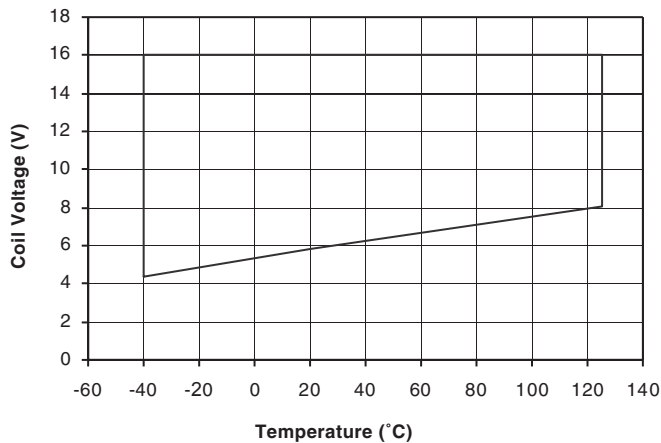


Example: Resistance of 95 Ω coil  
 = 75% of 95 Ω at -40°C, or 71.25 Ω  
 = 100% of 95 Ω at 20°C, or 95 Ω  
 = 125% of 95 Ω at 85°C, or 118.75 Ω

### Load Limit Curve



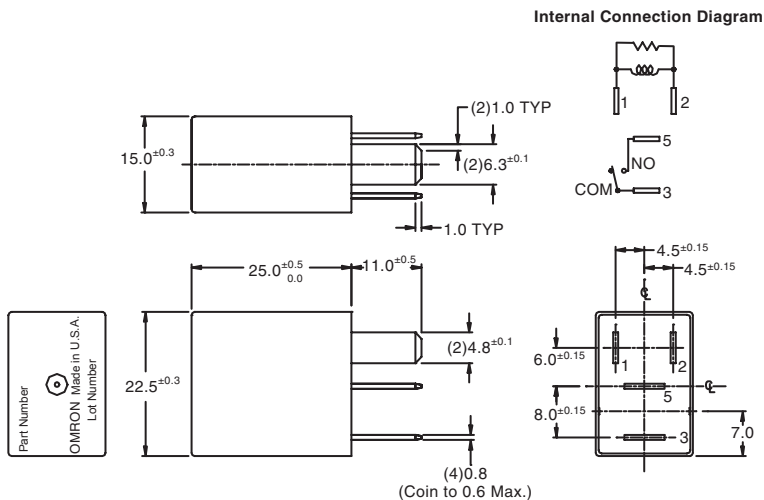
### Operating Voltage Range (110 Ω)



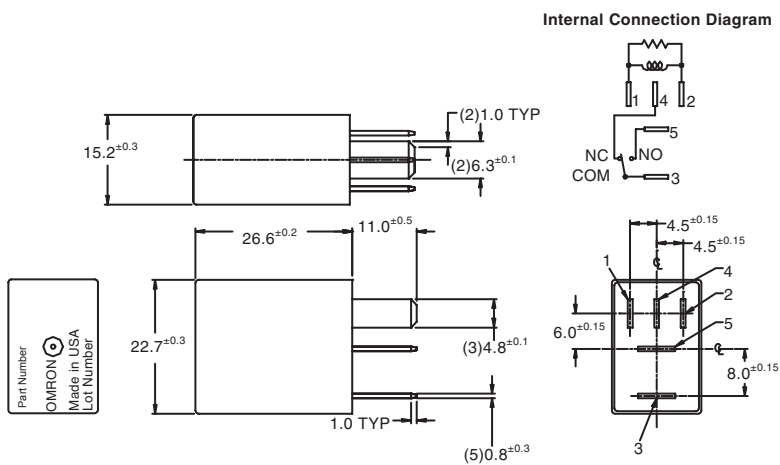
# Dimensions

Unit: mm

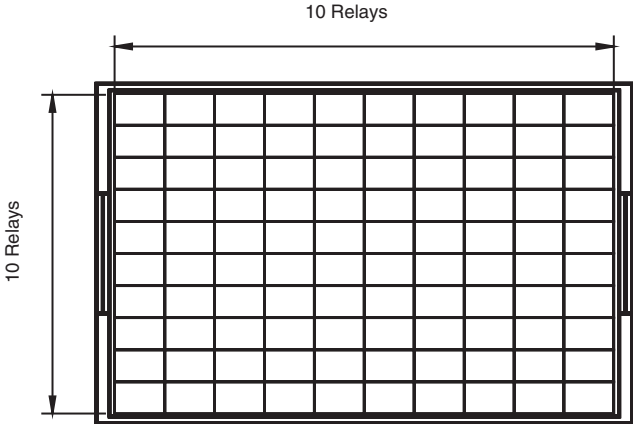
**G8HN-1A2T-R**  
**G8HN-1A2T-H62-R**  
**(SPST)**



**G8HN-1C2T-R**  
**(SPDT)**



# ■ Packaging



100 relays per tray, 6 trays per box (600 relays per box)

- Note:**
- 1. For additional information, please contact Omron.
  - 2. Prior to receipt of order, specifications subject to change without notice.
  - 3. This data sheet is intended to be a guideline for use of this product. The information contained is believed to be correct. However, it is impossible for Omron to evaluate every possible use. It is the user's responsibility to determine product suitability in any application.
  - 4. Omron can meet some special performance characteristics upon request.
  - 5. All data at 20°C unless otherwise noted.