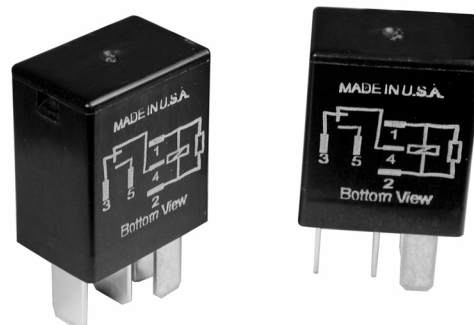


# Micro ISO Automotive Relay G8HN

- 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>
	Malfunction durability	20 - 500 Hz, 43.1 m/s <sup>2</sup>
Shock	Mechanical durability	1000 m/s <sup>2</sup>
	Malfunction 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

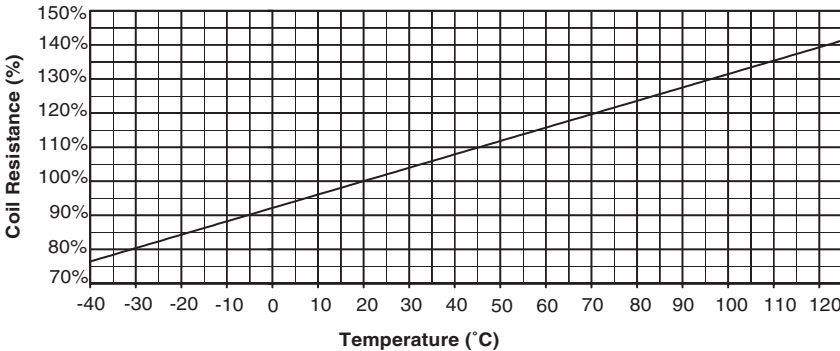
**Durability**

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**

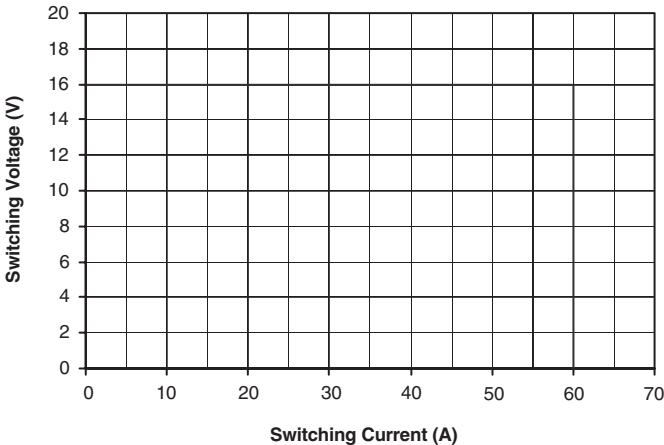
Model	Current	Duration
G8HN-1A2T-R	80 A	10 sec., 14 V, 80C
	50 A	30 sec., 14 V, 80C

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

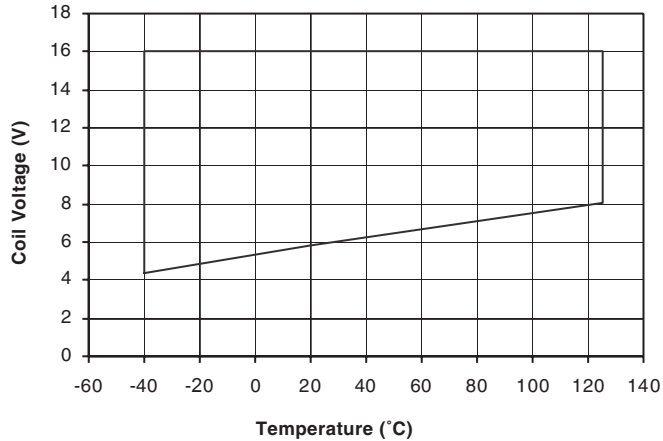


Example: Resistance of 95 Ω coil  
 = 75% of 95 Ω at -40° C, or 71.25 Ω  
 = 100% of 95 Ω at 20° C, or 95 Ω  
 = 125% of 95 Ω at 85° C, or 118.75 Ω

**Load Limit Curve**



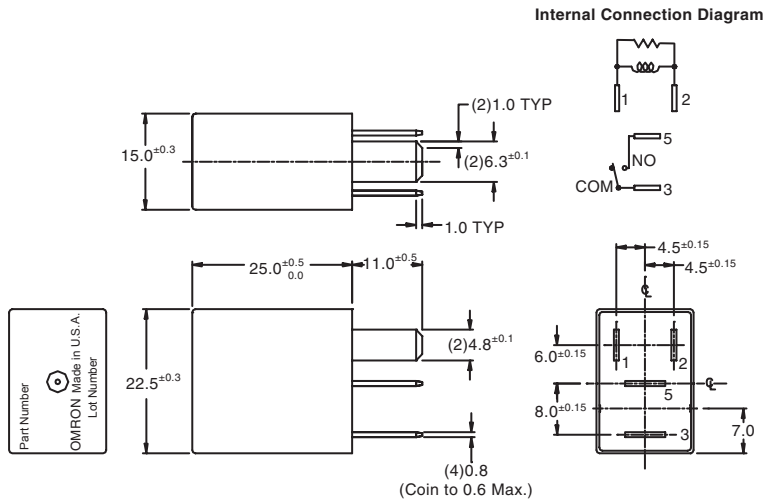
**Operating Voltage Range (110 Ω)**



# Dimensions

Unit: mm

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



## G8HN-1C2T-R (SPDT)

