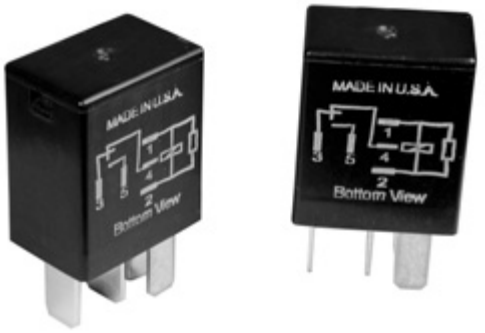
Micro ISO Automotive Relay
G8HN

- 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^2
	Malfunction durability	20 - 500 Hz, 43.1 m/s^2
Shock	**Mechanical durability**	1000 m/s^2
	Malfunction durability	100 m/s^2
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

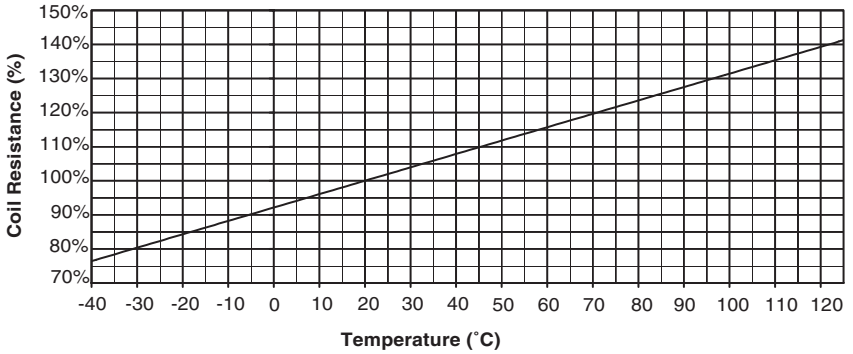
Durability

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

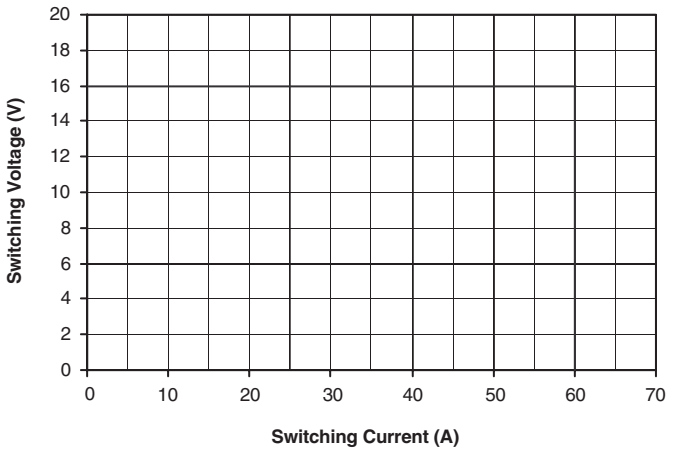
Model	Current	Duration
G8HN-1A2T-R	80 A	10 sec., 14 V, 80C
	50 A	30 sec., 14 V, 80C

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

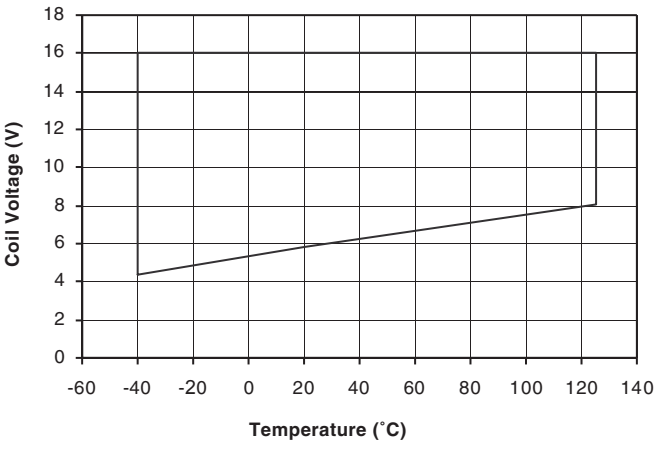


Example: Resistance of 95 Ω coil
= 75% of 95 Ω at -40°C, or 71.25 Ω
= 100% of 95 Ω at 20°C, or 95 Ω
= 125% of 95 Ω at 85°C, or 118.75 Ω

Load Limit Curve



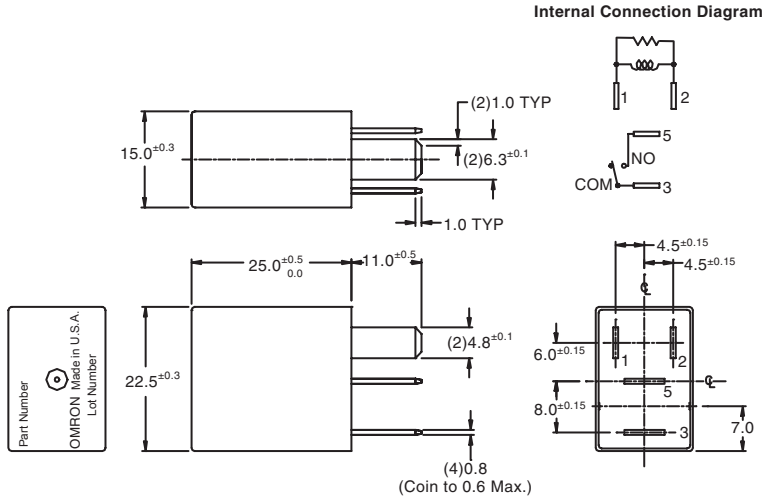
Operating Voltage Range (110 Ω)



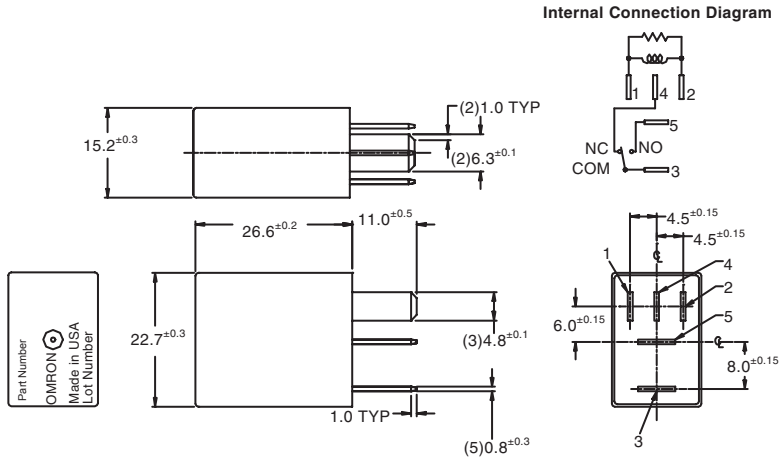
Dimensions

Unit: mm

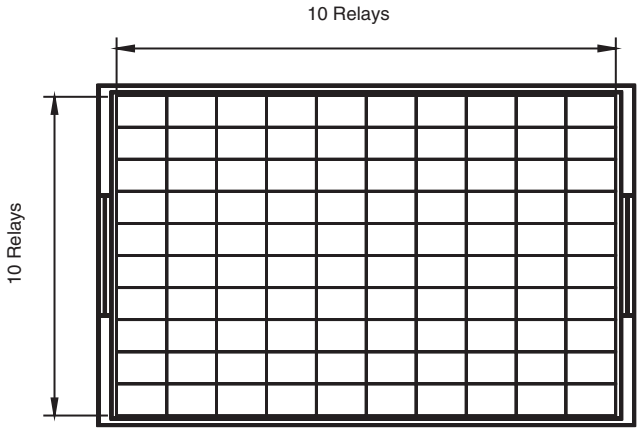
G8HN-1A2T-R
G8HN-1A2T-H62-R
(SPST)



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.