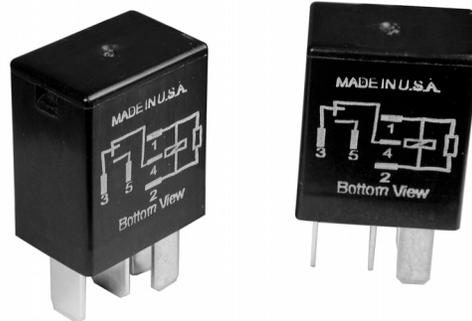


Micro ISO Automotive Relay G8HN

- 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

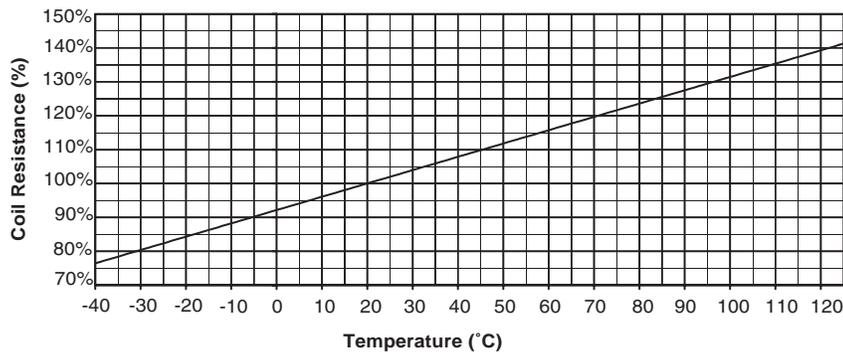
Durability

| 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

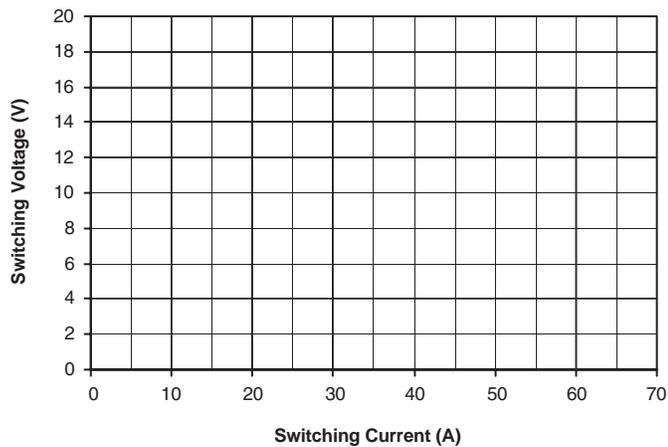
| Model | Current | Duration |
|-------------|---------|--------------------|
| G8HN-1A2T-R | 80 A | 10 sec., 14 V, 80C |
| | 50 A | 30 sec., 14 V, 80C |

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

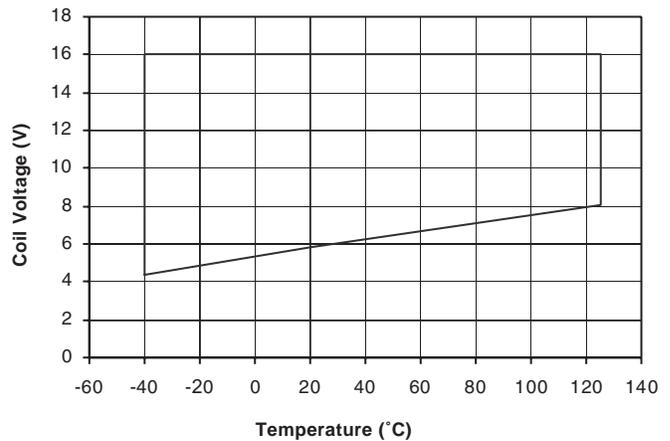


Example: Resistance of 95 Ω coil
 = 75% of 95 Ω at -40°C, or 71.25 Ω
 = 100% of 95 Ω at 20°C, or 95 Ω
 = 125% of 95 Ω at 85°C, or 118.75 Ω

Load Limit Curve



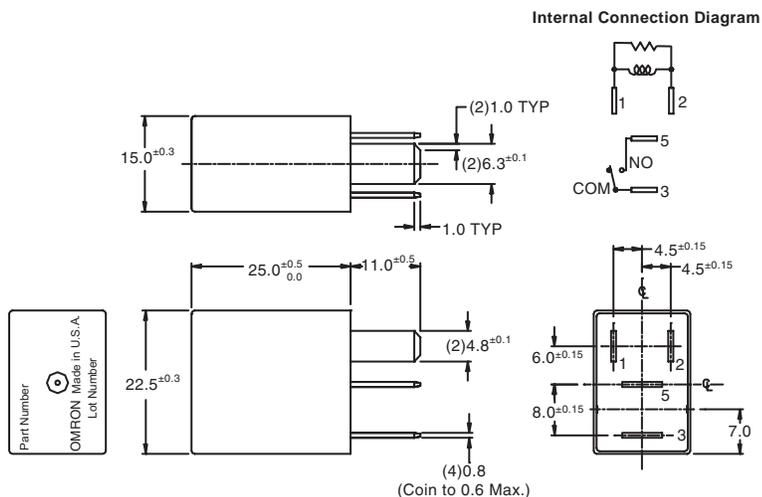
Operating Voltage Range (110 Ω)



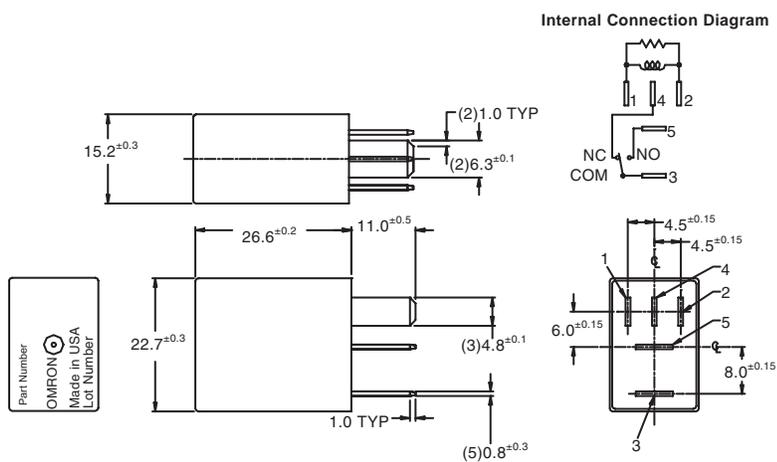
Dimensions

Unit: mm

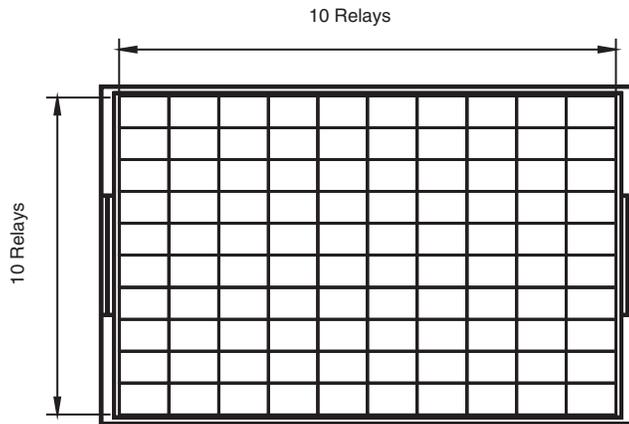
G8HN-1A2T-R G8HN-1A2T-H62-R (SPST)



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.

MEMO

A large grid of dashed lines for taking notes, consisting of 20 columns and 30 rows.

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