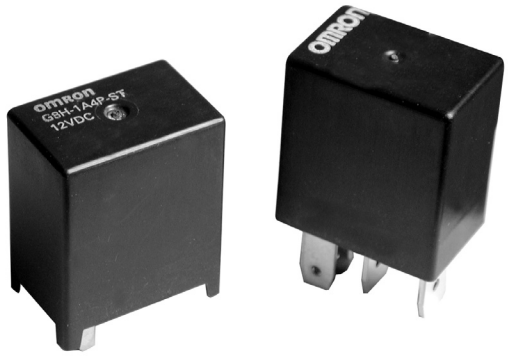
OMRON

Micro ISO Automotive Relay
G8H

- SPST/SPDT contacts.
- Fully automated assembly.
- Plug-in or PCB relay.
- Environment-friendly and light weight.
- Made in USA.



Ordering Information

Description	Model
SPST Standard type	**G8H-1A4T-R**
SPST Dustproof with boot over terminals	**G8H-1A7T-GR**
SPDT Standard	**G8H-1C4T-R**
SPDT Dustproof with boot over terminals	**G8H-1C7T-RB**

■ Typical Applications

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

Specifications

■ Coil Ratings (at 20° C)

Model	Rated voltage	Coil resistance ±10%	Coil resistance w/680 Ω suppression ±10%	Nominal power consumption	Pull in voltage	Dropout voltage
G8H-1A4T-R	12 VDC	100 Ω	80 Ω	1440 mW	< 8.0 V	> 0.7 V
G8H-1A7T-GR			80 Ω		< 7.0 V	
G8H-1C4T-R			80 Ω		< 7.0 V	
G8H-1C7T-RB			80 Ω		< 8.0 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 500 VAC, 50 - 60 Hz for 1 minute between coil and contacts and between contacts
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. (load dependent)
	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

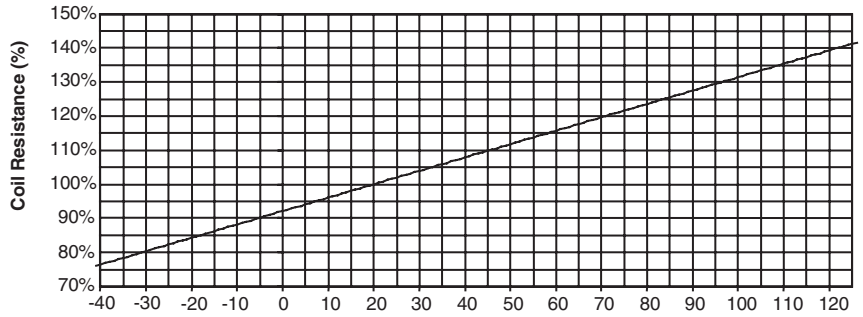
Durability

Model	Load type	Current	Cycles tested
G8H-1C7T-R	Resistive load	20 A (NO), 10 A (NC)	100,000
	Starter motor	45 A stall, 15 A continuous	30,000

Overcurrent Test

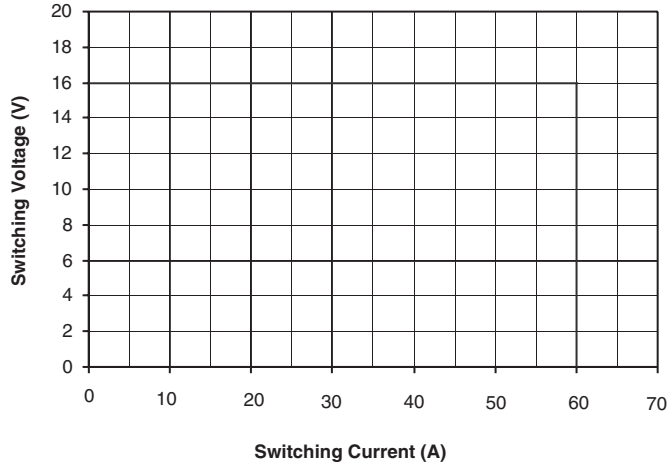
Model	Current	Duration
G8H-1C7T-R	40 A (NO), 20 A (NC)	3 cycles (1 cycle is 5 min ON, 10 min. OFF)

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

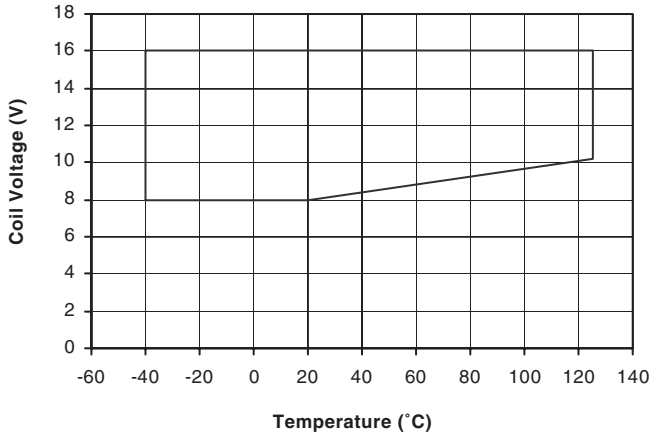


Example: Resistance of 100 Ω coil
= 75% of 100 Ω at -40° C, or 75 Ω
= 100% of 100 Ω at 20° C, or 100 Ω
= 125% of 100 Ω at 85° C, 125 Ω

Load Limit Curve



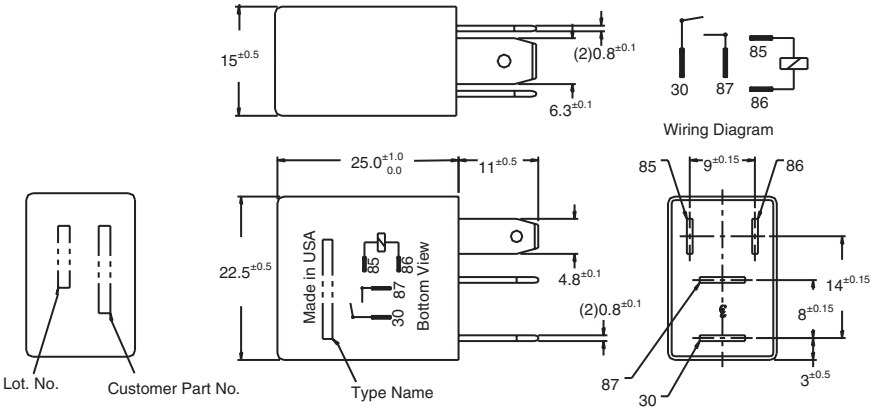
Operating Voltage Range (100 Ω coil)



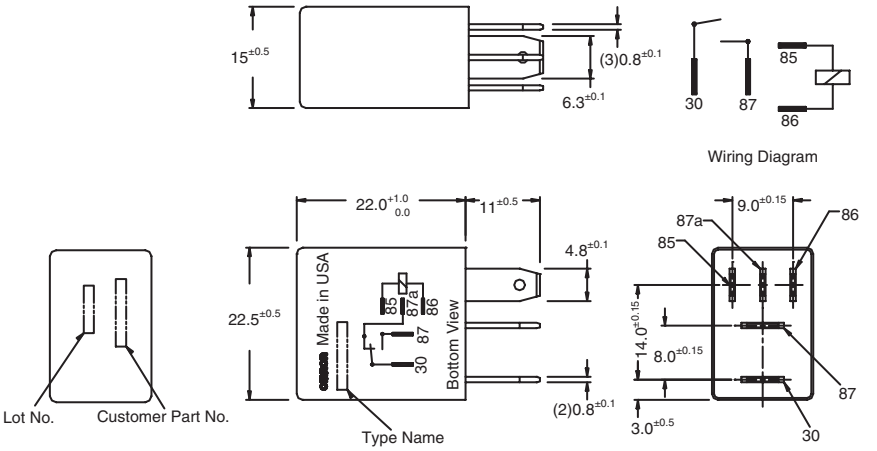
Dimensions

Unit: mm

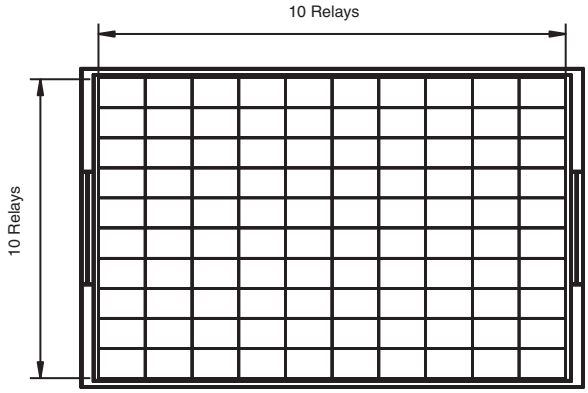
G8H-1A4T-R
(SPST)



G8H-1C4T-R
(SPDT)



■ Packaging



100 relays per tray, 6 trays per box (60 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.

Omron Electronic Components, LLC

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   (d) Products: Products and/or services of Seller
   (e) Including: Including without limitation
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