

# High-Current Micro 280 Automotive Relay G8V-RH

- Available in both SPST and SPDT versions
- Miniaturized package (reduced outer length and width)
- L x W x H =  $22.5 \times 15 \times 25 \text{ mm nominal}$
- 280 terminal type
- Fully automated assembly
- Made in Canada

#### Available Types —

Туре	Description
G8V-RH-1A7T-R-DC12	High-Current Micro 280 SPST Plug-In with Resistor
G8V-RH-1C7T-R-DC12	High-Current Micro 280 SPDT Plug-In with Resistor

#### Contact Data

Typical Switching Current	Inrush 90A, Steady State 35A (N.O.) / Inrush 60A, Steady State 20A (N.C.)	
Max Switching Voltage	16V	
Min. Carry / Switching Current	1A	
Contact Material	Silver Tin Oxide (Cadmium Free)	

### Coil Ratings (at 20°C) —

Туре	Rated Voltage	Coil Resistance ±10%	Coil Resistance w/ 1.1KΩ suppression ±10%	Nominal Power Consumption*	Pull in Voltage	Dropout Voltage
G8V-RH-1A7T- R-DC12 / G8V-RH-1C7T- R-DC12	12VDC	84 - 124 Ω	75 - 105 Ω	1.6 W	< 7.5 V	> 1.0 V

<sup>\*</sup> Power consumption includes suppression resistor. Power consumption will decrease without coil suppression.

## **Typical Applications**

Motor Load:	N.O. side: 240W Cooling Fan, 150W Cooling Fan
	N.O. and N.C. side: 240W Series / Parallel Fan
Lamp Load:	Brake Lamp with Parallel Resistance
Resistive Load:	N.O. and N.C. side

OMRON® G8V-RH Rev A

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### Characteristics

Max. Initial Contact Voltage Drop		150mV @ 35A N.O.; 175mV @20A N.C.	
NO Activation Time		20 ms max. (4 ms typical) @ 14 V	
NO Deactivation Time		20 ms max. (1.2 ms typical*) @ 14 V	
Insulation resistance		20 MΩ min (at 500 VDC)	
Dielectric strength		< 1.0 mA max. leakage at 900 VAC, 50-60 Hz for 1 sec between coil and contacts and between contacts.	
Ambient Operating Temperature		-40°C to 125°C	
Humidity		Up to 95%	
Service life	Mechanical	1,000,000 operations min.	
	Electrical	100,000 operations min (load dependent).	
Weight		19.3g	

<sup>\*</sup> Typical data includes coil suppression. Release times may decrease without coil suppression.

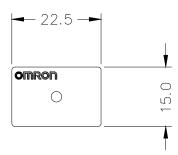
### Characteristic Reference Data ———

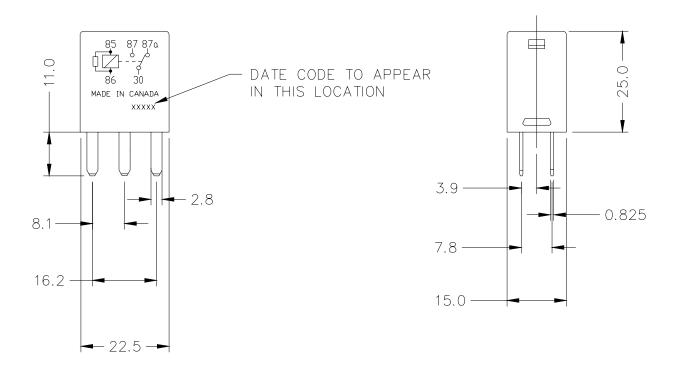
### **Durability Data**

Relay	Load Type	Current	Cycles Tested
G8VS1	N.O. Motor Load	90 A Inrush	250,000
	N.O. Motor Load	25 A Steady State	3s on, 5s off
	N.O. Motor Load	70.5 A Inrush	250,000
		16.3 A Steady State	3s on, 5s off
	N.O. & N.C. Motor Load	N.O. 65A Inrush, 25A Steady State	100,000
		N.C. 5 A Steady State	3s on, 5s off
	N.O. Lamp Load	100 A Inrush	100,000
		17 A Steady State	2s on, 2s off
	N.O. Brake Lamp Load with Parallel Resistance	92 A Inrush	925,000
		13.2 A Steady State	1s on, 3s off
	N.O. / N.C. Resistive Load	35 A / 20 A Steady State	100,000 1s on, 1s off

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### **Dimensions**







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