



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 x 15 x 25 mm nominal
- 280 terminal type
- Fully automated assembly
- Made in Canada

Available Types

Type	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)

Type	Rated Voltage	Coil Resistance $\pm 10\%$	Coil Resistance w/ 1.1K Ω suppression $\pm 10\%$	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

* 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

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 M Ω 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	

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

Dimensions

