

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# **Sub-Miniature PCB Relay**

G8SN

- SPDT version.
- 10A Continuous Contact Rating @85°C.
- 10A, 16VDC Switching Rating.
- 30A Inrush on N.O. at 16VDC.
- Fully automated assembly.
- Dimensions (Max) 22.5 x 16.5 x 16.5 mm
- Made in Canada.

### Available Types ———

Type	Description
G8SN-1C4P-DC12	Sub-Miniature, SPDT, PCB Mount

#### Contact Data -

Max Switching Current	Inrush 30A, Steady 10A
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%	Nominal Power Consumption	Pull in Voltage	Dropout Voltage
G8SN-1C4P- DC12	12VDC	180 Ω	0.8 W	7.3 V max @ 23°C	0.6 V min. @ 23°C

# Typical Applications

Car Audio	Courtesy Lamp
Power Window	Electric Sunroof
Power Door Lock	Power Seat

OMRON® G8SN Rev A

### Characteristics

Max. Initial Contact Voltage Drop		25mV @ 1A	
NO Activation Time		10 ms max. (4.3 ms typical) @ 14 V	
NO Deactivation Time		10 ms max. (2.6 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 T	emperature	-40°C to 85°C	
Humidity		Up to 97%	
Service life	Mechanical	1,000,000 operations min.	
	Electrical	100,000 operations min (load dependent).	
Weight		13g	

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

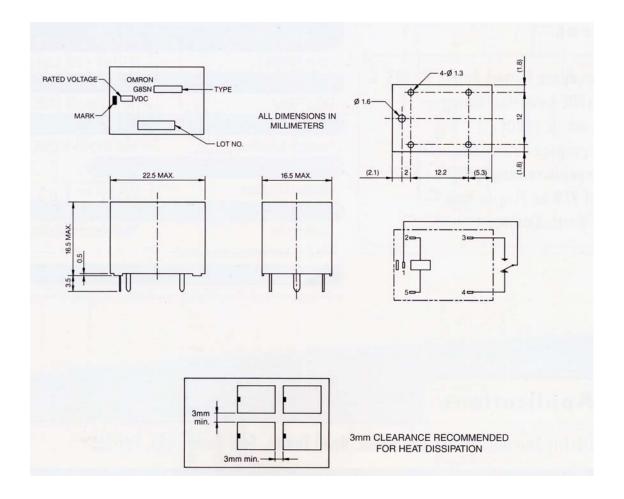
### Characteristic Reference Data ————

## **Durability Data**

Relay	Load Type	Current	Cycles Tested	
	N.O./N.C. Reversing Motor Load	20 A Inrush	100,000 + 100,000 3s on, 3s off	
	N.O./N.C. Neversing Motor Load	6 A Steady State		
	N.O./N.C. Rear Wiper Motor Load	10 A Inrush	200,000	
	N.O./N.C. Real Wiper Wiotor Load	1 A Steady State	1s on, 4s off	
G8SN	N.O. Starter Load	N/A Inrush	300,000 0.8s on, 9.2s off	
		26 – 38 A Steady State		
	N.O. Magnet Clutch Load	N/A Inrush	300,000	
	N.O. Magnet Clutch Load	3.8 A Steady State	2s on, 2s off	
	N.O. Door Lock Motor Load	N/A Inrush	200,000 0.2s on, 19.8s off	
	N.O. DOOI LOCK MOTOL LOAD	25 A Steady State		

OMRON® G8SN Rev A

### **Dimensions**



**OMRON® G8SN Rev A**