# OMRON

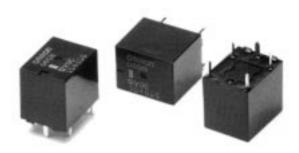
#### Sub–Miniature Automotive PCB Relay

## G8QN

#### Sub–Miniature Automotive PCB Relay

- Compact size.
- High performance PCB relay.
- Fully sealed construction.
- Next generation general purpose automotive PCB relay.
- Fully automated assembly.

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#### Available Types

Туре	Contact form	Recommended loads
G8QN–1C4 12DC	SPDT	Motor, Resistive

#### Contact Data -

Continuous carry current (max.)	5A
Inrush current (L/R=7ms; 15ms max.)	20A
Contact voltage drop (Initial value at 23°C) (max.)	100mΩ

#### Ratings/Specifications

Rated voltage		12 VDC
Operating voltage (max.)		16 VDC
Coil resistance		$210\Omega\pm10\%$
Pull in voltage (cold start)	at +20°C (max.)	7.3V DC
	at +80°C (max.)	9.0V DC
Drop–out voltage at +20°C (min.)		0.9V DC
Continuous carry current flow time (16V at 80°C) (max.)		15min.
Operate time (max.)		10 ms
Release time (max.)		5 ms
Operating ambient temperature		-40°C to +85°C
Mechanical life (min.)		10,000,000 cycles (at frequency of 18,000 operations/hour)
Electrical life (resistive load) (min.)		100,000 cycles (14V; Continuous carry current)
Weight		5.5g

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Power seat

Electric wing mirror

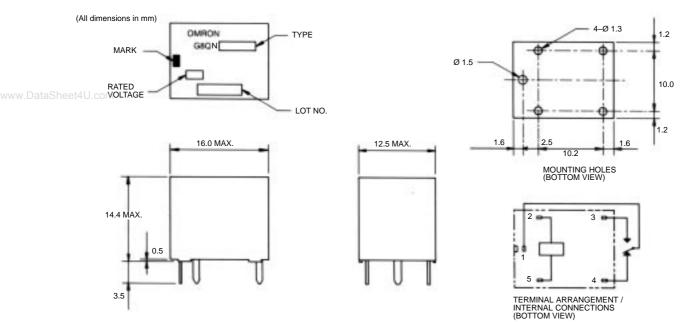
Power radio aerial

Washer pump

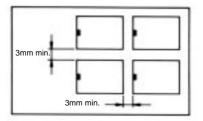
#### **Application Examples**

- Power window
- Electric sunroof
- Intermittent Windshield wiper
- Power door lock

### Dimensions



- Omron PCB relays may be mounted in any convenient location that is dry and not exposed to excessive dust, S0<sub>2</sub>, H<sub>2</sub>S or organic gases.
- All Omron PCB relays may be oriented in any desired direction. Whenever possible, however, care should be taken that they are not subjected to vibration along the direction of contact movement.



**Note:** Proper spacing is necessary to dissipate heat build–up from individual relays. Other than this, there are normally no restrictions depending on application. Please contact Omron for details.

If several relays are to be mounted on a single printed circuit board, they should be given at least 3mm clearance on all sides as shown in the diagram below.

Cat. No. C-G8QN-001 In the interest of product improvement, specifications are subject to change without notice.

**OMRON Electronics Ltd.** 

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