

# Automotive Relay

# G8J

## General Purpose Automotive Power Relay

- Standard ISO terminal footprint
- Handles heavy automotive load; inrush current 100A
- High current path fully welded; reduces heat buildup at full load
- Made in North America



## Ordering Information

Terminal type	Contact form	Cover	Resistor	Bracket	Part number
PCB	SPST-NO	Standard	—	—	<b>G8J-1A7P-DC12</b>
PCB	SPST-NO	Standard	680Ω	—	<b>G8J-1A7P-R-DC12</b>
Plug In	SPDT	Standard	—	—	<b>G8J-1C7T-DC12</b>
Plug In	SPDT	Standard	—	Molded Plastic	<b>G8J-1C7T-MF-DC12</b>
Plug in	SPDT	Standard	680Ω	—	<b>G8J-1C7T-R-DC12</b>
Plug In	SPDT	Standard	680Ω	Molded Plastic	<b>G8J-1C7T-MF-R-DC12</b>
Plug In	SPDT	Weatherproof	—	—	<b>G8J-1C6T-DC12</b>
Plug In	SPDT	Weatherproof	680Ω	—	<b>G8J-1C6T-R-DC12</b>
Plug In	SPDT	Weatherproof	680Ω	Metal	<b>G8J-1C6T-F-R-DC12</b>
Plug In	SPDT	Weatherproof	—	Metal	<b>G8J-1C6T-F-DC12</b>

## Specifications

### CONTACT DATA

Max. resistive load	SPST	40A
	SPDT	40A(NO) / 20A(NC)
Contact voltage drop [Initial value at 23°C (73°F)]		≤150mV(NO) / ≤175mV(NC)
Max. inrush current	Inductive load	100A inrush / 20A break(NO)
	Capacitive load	300A inrush(NO)

### COIL DATA

Rated voltage	12 VDC
Operating voltage	10-16 VDC
Coil resistance	78Ω ± 10%
Pick-up voltage	8V at 23°C (73°F) 11V at 125°C (257°F)
Dropout voltage	1V at 23°C (73°F)

**CHARACTERISTICS**

Operate time at 23°C (73°F)	5 ms max.
Release time at 23°C (73°F)	4 ms max.
Duty cycle at rated load [16V at 80°C (176°F)]	Up to 100%
Mechanical life	10,000,000 operations minimum at 18,000 operations/hour
Electrical life (resistive load)	100,000 operations minimum (14V / 35A)
Operating ambient temperature	-40° to 125°C (-40° to 257°F)
Weight	Approx. 40g

Note: Data shown are of initial value.

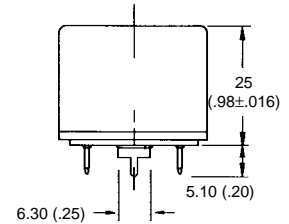
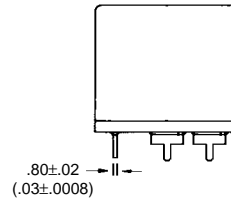
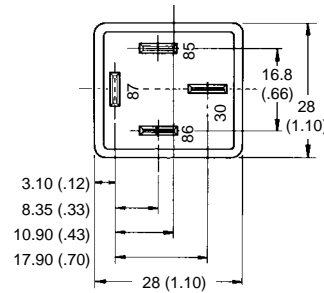
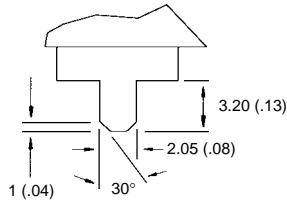
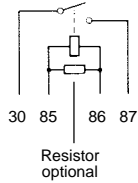
**Dimensions**

Unit: mm (inch)

**SPST PCB TYPE**

G8J-1A7P-\_\_

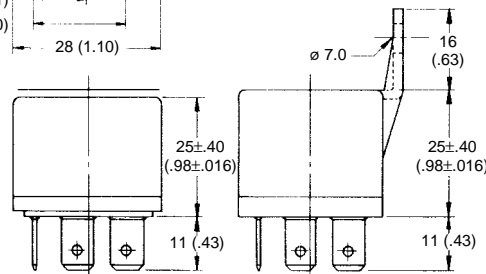
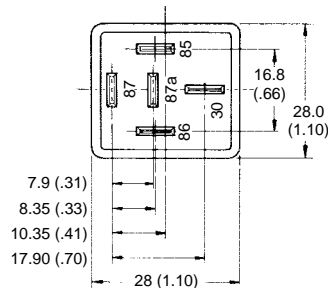
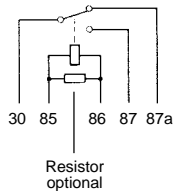
Circuit Diagram



**SPDT PLUG-IN TYPE**

G8J-1C7T-\_\_

Circuit Diagram



Standard Package

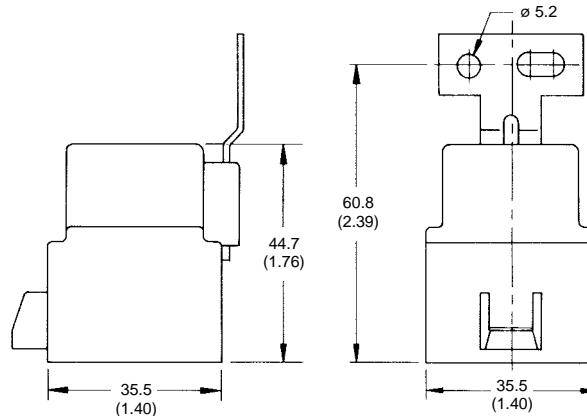
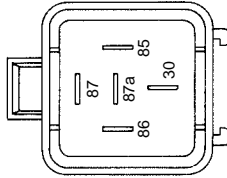
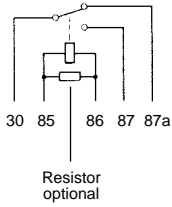
Plastic Bracket Optional



■ SPDT PLUG-IN WEATHERPROOF TYPE

G8J-1C6T-\_\_\_

Circuit Diagram



Metal Bracket  
Optional

Note: In the interest of product improvement, specifications are subject to change.



OMRON ELECTRONICS, INC.

One East Commerce Drive  
Schaumburg, IL 60173  
1-800-55-OMRON

OMRON CANADA, INC.

885 Milner Avenue  
Scarborough, Ontario M1B 5V8  
416-286-6465