

# Power PCB Relay

# G5J

- Low-cost relay for electric appliances
- PCB + Quick Connect Terminals
- Withstands surges of 10,000 V for 1 minute
- TV 8 available



## Ordering Information

To Order: Select the part number and add the desired coil voltage rating, (e.g., G5J-1-TP-M-DC12).

Terminal	Contact form	Construction	Part number
PCB + Quick Connect	SPST-NO	Unsealed	<b>G5J-1-TP-M</b>

## Specifications

### ■ CONTACT DATA

Load	Resistive load (p.f. = 1)
Rated load	16 A at 250 VAC, 16 A at 30 VDC
Contact material	AgCdO
Carry current	16 A
Max. operating voltage	250 VAC, 30 VDC
Max. operating current	16 A
Max. switching capacity	4,000 VA, 480 W
Min. permissible load	100 mA, 5 VDC

### ■ COIL DATA

Rated voltage (VDC)	Rated current (mA)	Coil resistance (Ω)	Coil inductance (Ref. value) (H)		Pick-up voltage	Dropout voltage	Maximum voltage	Power consumption (mW)
			Armature OFF	Armature ON				
5	138.9	36	—	—	70% max.	10% min.	110% at 70°C (158°F)	Approx. 700
12	58.3	206	1.74	1.44				
18	38.9	463	—	—				
24	29.2	822	6.74	5.22				

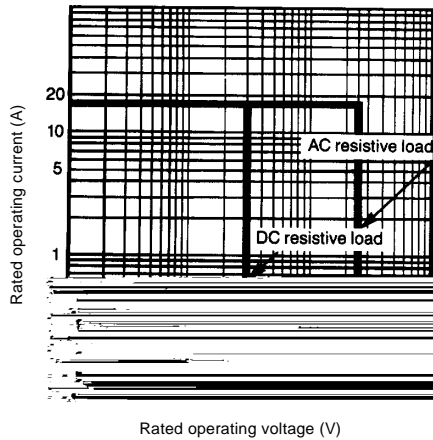
## ■ CHARACTERISTICS

Contact resistance		30 mΩ max.
Operate time		20 ms max. (mean value: approx. 10.20 ms)
Release time		5 ms max. (mean value: approx. 1.25 ms)
Bounce time		Operate: (mean value: approx. 0.80 ms)
Operating frequency	Mechanical	18,000 operations/hour
	Electrical	1,800 operations/hour (under rated load)
Insulation resistance		1,000 MΩ min. (at 500 VDC)
Dielectric strength		4,000 VAC, 50/60 Hz for 1 minute between coil and contacts 1,000 VAC, 50/60 Hz for 1 minute between contacts of same polarity
Vibration	Mechanical durability	10 to 55 Hz; 1.50 mm (0.06 in) double amplitude
	Malfunction durability	10 to 55 Hz; 1.50 mm (0.06 in) double amplitude
Shock	Mechanical durability	1,000 m/s <sup>2</sup> (approx. 100 G)
	Malfunction durability	150 m/s <sup>2</sup> (approx. 15 G)
Ambient temperature		-25° to 70°C (-13° to 158°F)
Humidity		35% to 85% RH
Service life	Mechanical	2 million operations min. (at operating frequency of 18,000 operations/hour)
	Electrical	See "Characteristic Data"
Weight		Approx. 22 g (0.78 oz)

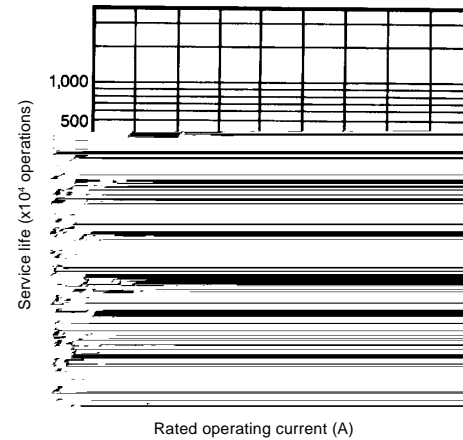
Note: Data shown are of initial value.

## ■ CHARACTERISTIC DATA

### Maximum switching capacity



### Electrical service life



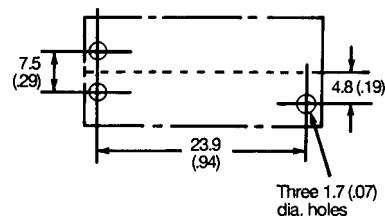
# Dimensions

Unit: mm (inch)

## ■ RELAYS

Terminal arrangement/  
Internal connections

Mounting holes  
(Bottom view)



## ■ APPROVALS

UL (File No. E41643)/CSA (File No. LR31928)

Type	Contact form	Coil ratings	Contact ratings
G5J-1-TP-M	SPST-NO	6 to 24 VDC	16 A, 250 VAC (General use)
			16 A, 30 VDC (Resistive)
			1/2 HP, 125 VAC
			1 HP, 250 VAC
			TV-8
			960 WT, 120 VAC Tungsten

- Note: 1. The rated values approved by each of the safety standards (e.g., UL and CSA) may be different from the performance characteristics individually defined in this catalog.  
2. In the interest of product improvement, specifications are subject to change.

# OMRON

**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**