

# PCB Relay

# G5J

## Ideal for Microwave Oven Magnetrons and Heater Switching

- Dual tab/PCB terminals.
- Small, space-saving bottom surface area..
- High impulse withstand voltage: 10 kV



## Ordering Information

Enclosure rating	Contact form	Model
Unsealed	SPST-NO	G5J-1-TP-M

**Note:** When ordering, add the rated coil voltage to the model number.

Example: G5J-1-TP-M 12 VDC  
Rated coil voltage

### ■ Model Number Legend:

G5J -    -    -        
1 2 3 4

- 1. Number of Poles**  
1: 1 pole (SPST-NO contact)
- 2. Terminals**  
TP: Relays with #187, Tab/PCB
- 3. Others**  
M: Standard
- 4. Rated Coil Voltage**  
12, 18, 24 VDC

## Specifications

### ■ Coil Ratings

Rated voltage	12 VDC	18 VDC	24 VDC
Rated current	58.3 mA	38.9 mA	29.2 mA
Coil resistance	206 Ω	463 Ω	822 Ω
Must operate voltage	70% max. of rated voltage		
Must release voltage	10% min. of rated voltage		
Maximum voltage	110% of rated voltage		
Power consumption	Approx. 700 mW		

## ■ Contact Ratings

Rated load	16 A at 250 VAC/30 VDC ( $\cos\phi = 1$ )
Rated carry current	16 A
Max. switching voltage	250 VAC; 30 VDC

**Note:** 1. The rated current and coil resistance are measured at a coil temperature of 23°C with a tolerance of  $\pm 10\%$ .  
2. = indicates DC (IEC 417 publications).

## ■ Characteristics

Contact resistance	30 m $\Omega$ max.
Operate time	20 ms max.
Release time	5 ms max.
Insulation resistance	1,000 M $\Omega$ min. (at 500 VDC)
Dielectric strength	4,000 VAC between coil and contacts (1 min.) 1,000 VAC between contacts of same pole (1 min.)
Impulse withstand voltage	10 kV (1.2 x 50 $\mu$ s) between coil and contacts
Vibration resistance	Destruction: 10 to 55 Hz, 1.5-mm double amplitude Malfunction: 10 to 55 Hz, 1.5-mm double amplitude
Shock resistance	Destruction: 1,000 m/s <sup>2</sup> Malfunction: 150 m/s <sup>2</sup>
Life expectancy	Mechanical: 2,000,000 operations min. (18,000 operations/hr) Electrical: 100,000 operations min. (1,800 operations/hr)
Ambient temperature	Operating: -25°C to 70°C (with no icing)
Ambient humidity	45% to 85%
Weight	Approx. 22.5 g

## ■ Approved by Standards

### UL508 (File No. E41643)

Coil ratings	Contact ratings
5 to 48 VDC	16 A 250 VAC 16 A 30 VDC 1/2 HP 125 VAC 1 HP 250 VAC

### CSA C22.2 No. 14 (File No. LR31928)

Coil ratings	Contact ratings
5 to 48 VDC	16 A 250 VAC 16 A 30 VDC 1/2 HP 125 VAC 1 HP 250 VAC

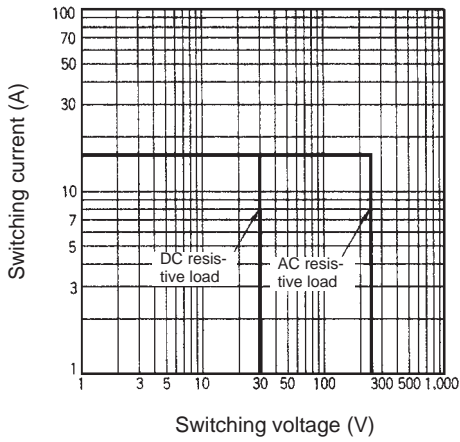
### VDE0435, IEC255, (IEC355-1)

Coil ratings	Contact ratings	Approved conditions
5 to 24 V=	16 A at 250 V~ ( $\cos\phi = 1$ ) 16 A at 30 V= (0 ms)	Duty level: class III Operative range: class 2 Pick-up class: class a Pollution degree: 2 Overvoltage category: II Material group: IIIa Ambient temperature: -25°C to 70°C

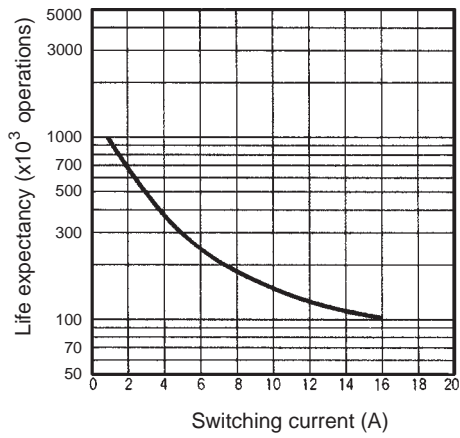
**Note:** ~ indicates AC and = indicates DC (IE417 publications).

# Engineering Data

## Max. Switching Capacity

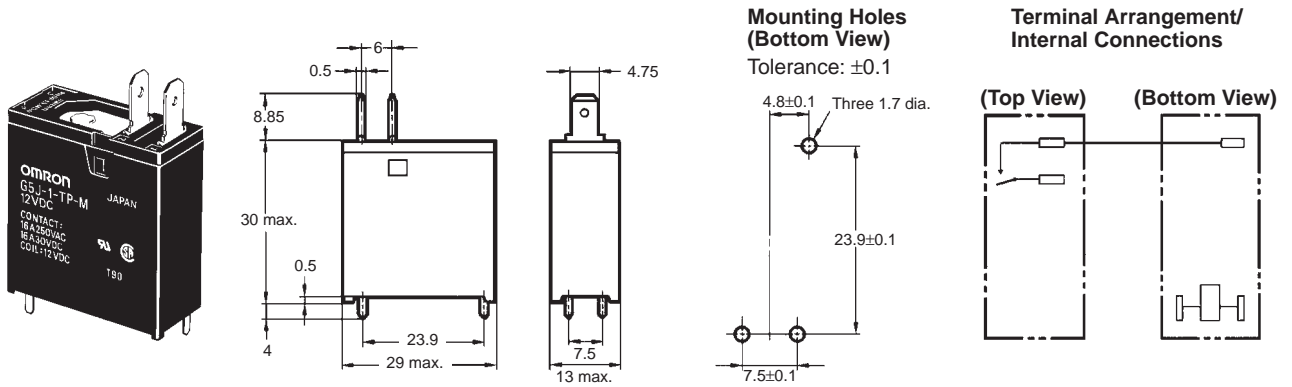


## Life Expectancy



## Dimensions

**Note:** All units are in millimeters unless otherwise indicated.



**ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.**  
 To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.