OMRON

Special-purpose PCB Relay | G5G

Ideal for Microwave Oven Magnetrons and Heater Switching

- Conforms to IEC 255 (TÜV approval), UL508, CSA22.2.
- Slim relay with high switching power: 16 A.
- Dual #187 tab/PCB terminals.
- High impulse withstand voltage: 10 kV.

Ordering Information

Enclosure ratings	Contact form	Standard Relays
Flux protection	SPST-NO	G5G-1A

Note: When ordering, add the rated coil voltage to the model number.
Example: G5G-1A 12 VDC
Rated coil voltage

Model Number Legend

G5G-□□ □ VDC
1 2 3

1. **Number of Poles**
   1: 1 pole
2. **Contact Form**
   A: SPST-NO
3. **Rated Coil Voltage**
   12, 18, 24 VDC

Specifications

■ Coil Ratings

Rated voltage	12 VDC	18 VDC	24 VDC
Rated current	41.7 mA	27.8 mA	20.8 mA
Coil resistance	288 Ω	648 Ω	1,152 Ω
Must operate voltage	70% max. of rated voltage		
Must release voltage	5% min. of rated voltage		
Max. voltage	110% of rated voltage		
Power consumption	Approx. 500 mW		

■ Contact Ratings

Rated load	16 A at 250 VAC
Rated carry current	16 A
Max. switching power	4,000 VA

■ Characteristics

Contact resistance	100 mΩ max.
Operate time	20 ms max.
Release time	5 ms max.
Insulation resistance	1,000 MΩ min. (at 500 VDC)
Dielectric strength	5,000 VAC between coil and contacts (1 min.) 1,000 VAC between contacts of same polarity (1 min.)
Impulse withstand voltage	10,000 V (1.2 50 μs) between coil and contacts
Vibration resistance	Destruction: 10 to 55 to 10 Hz, 0.75-mm single amplitude (1.5-mm double amplitude) Malfunction: 10 to 55 to 10 Hz, 0.75-mm single amplitude (1.5-mm double amplitude)
Shock resistance	Destruction: 1,000 m/s^2 Malfunction: 150 m/s^2
Endurance	Mechanical: 2,000,000 operations min. (18,000 operations/hr) Electrical: 100,000 operations min. (18,000 operations/hr)
Ambient temperature	Operating: −40°C to 70°C (with no icing)
Ambient humidity	Operating: 5% to 85%
Weight	Approx. 16 g

■ Approved Standards

UL508 (File No. E41515)

Model	Coil ratings	Contact ratings	Number of test operations
G5G-1A	12 VDC 18 VDC 24 VDC	16 A, 250 VAC	6,000

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

Model	Coil ratings	Contact ratings	Number of test operations
G5G-1A	12 VDC 18 VDC 24 VDC	16 A, 250 VAC	6,000

TÜV (IEC 255, File No. R9650783)

Model	Coil ratings	Contact ratings	Number of test operations
G5G-1A	12 VDC 18 VDC 24 VDC	16 A, 250 VAC	100,000

Reference Data

Heater Load

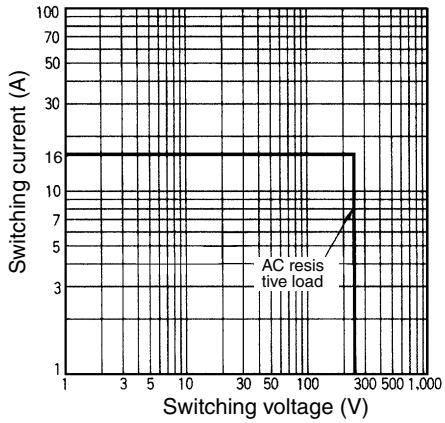
Load	Condition	Operations
250 VAC, 16 A (Rated Load)	1 s ON/OFF, at room temp.	100,000
220 VAC, 1.7 kW	3 s ON/OFF, at 80°C	380,000
120 VAC, 1.42 kW	3 s ON/OFF, at 80°C	500,000
121 VAC, 10.4 A	1.5 s ON/OFF, at 80°C	580,000
100 VAC, 12 A	1.5 s ON/OFF, at 80°C	200,000
100 VAC, 1.3 kW	3 s ON/OFF, at 80°C	290,000

Simulative Load

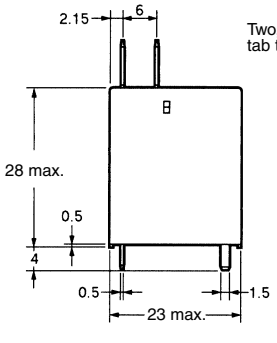
Load	Condition	Operations
125 VAC, Inrush current 16.5 A Steady current 5.5 A	2 s ON (Inrush: 0.5 s /Steady: 1.5 s) 3 s OFF, at 45°C	250,000

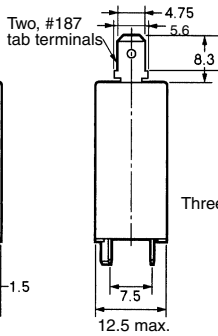
Engineering Data

Maximum Switching Power

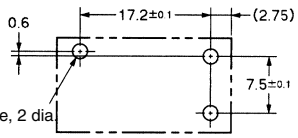


Dimensions

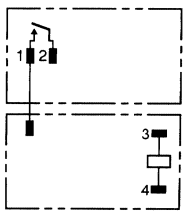




Mounting Holes
(Bottom View)



Terminal Arrangement/ Internal Connections
(Bottom View)



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

Cat. No. K110-E1-1