OMRON® Power PCB Relay

- 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	G5J-1-TP-M

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

G5J

FI (5)

■ 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/s² (approx. 100 G)	
	Malfunction durability	150 m/s² (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





Electrical service life



Dimensions

Unit: mm (inch)

RELAYS





Terminal arrangement/

Mounting holes (Bottom view)



■ APPROVALS

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

Туре	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**

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