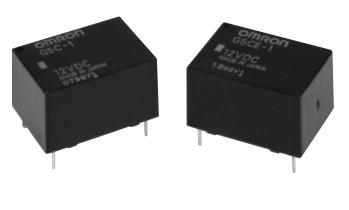
# OMRON® Power PCB Relay

- Miniature 16 W x 22 L x 10.9 H mm (0.63 W x 0.87 L x 0.43 H in)
- Low power consumption (150 mW)
- Flux tight and fully sealed construction
- Long electrical service life
- High switching capacity
- Ideal for switching power supplies on small appliances and output to industrial equipment



A 🚯 LR

# Ordering Information.

To Order: Select the part number and add the desired coil voltage rating, (e.g., G5C-1-DC12).

Туре	Contact form	Construction	Part number
Standard	SPST-NO	Semi-sealed	G5C-1
		Sealed	G5C-14
High capacity		Semi-sealed	G5CE-1
High sensitivity		Semi-sealed	G5C-1-H
		Sealed	G5C-14-H
Low sensitivity		Semi-sealed	G5C-1-L
		Sealed	G5C-14-L
PCB+QC		Semi-sealed	G5CE-1-TP

# Specifications.

# ■ CONTACT DATA

Туре	G5C-1-□-□	G5CE-1-	
Load	Resistive Load (p.f. = 1)		
Rated load	10 A at 250 VAC, 10 A at 30 VDC 15 A at 110 VAC, 10 A at 30		
Contact material	AgCdO		
Carry current	10 A 15 A		
Max. operating voltage	250 VAC, 125 VDC		
Max. operating current	10 A	15 A	
Max. switching capacity	2,500 VA, 300 W		
Min. permissible load	100 mA at 5 VDC		

### COIL DATA

#### Standard type/high capacity

Rated voltage	Rated current	Coil resistance	Pick-up voltage	Dropout voltage	Maximum voltage	Power consumption
(VDC)	(mA)	(Ω)	% of rated voltage			(mW)
3	66.70	45	75% max.	10% min.	130%	Approx. 200
5	40.00	125			at 70°C (158°F)	
6	33.30	180				
12	16.70	720			110%	
24	8.30	2,880			at 70°C (158°F) for high capacity	
48	4.20	11,520				
60	3.30	18,180			type	

#### High-sensitivity type

Rated voltage	Rated current	Coil resistance	Pick-up voltage	Dropout voltage	Maximum voltage	Power consumption
(VDC) (mA)		(Ω)	% of rated voltage	(mW)		
3	50.00	60	80% max.	10% min.	130%	Approx. 150
5	30.00	166.70	1		at 70°C (158°F)	
6	25.00	240				
12	12.50	960				
24	6.30	3,810				
48	3.10	15,480				

#### Low-sensitivity type

Rated voltage	Rated current	Coil resistance	Pick-up voltage	Dropout voltage	Maximum voltage	Power consumption
(VDC)	(mA)	(Ω)	% of rated voltage			(mW)
3	120.00	25	80% max.	10% min.	110%	Approx. 360
5	72.00	69.40			at 70°C (158°F)	
6	60.00	100				
12	30.00	400				
24	15.00	1,600				
48	7.50	6,400				

Note: 1. The rated current and coil resistance are measured at a coil temperature of 23°C (73°F) with a tolerance of ±10%.

2. The operating characteristics are measured at a coil temperature of 23°C (73°F).

# ■ CHARACTERISTICS

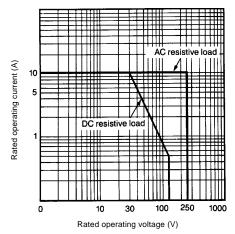
Contact resistance		30 mΩ max.	
Operate time		10 ms max. (mean value: 6.70 ms) 15 ms max. for high sensitivity type (mean value: 7.30 ms)	
Release time		10 ms max. (mean value: 0.90 ms)	
Bounce time		5 ms max. (mean value: 0.90 ms)	
Operating frequency	Mechanical	18,000 operations/hour	
	Electrical	1,200 operations/hour	
Insulation resistance		1,000 MΩ min. (at 500 VDC)	
Dielectric strength		2,500 VAC, 50/60 Hz for 1 minute between coil and contacts 1,000 VAC, 50/60 Hz for 1 minute between contacts of same pole	
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	200 m/s² (approx. 20 G)	
Ambient temperature Operating/storage		-25° to 70°C (-13° to 158°F)	
Humidity		45% to 85% RH	
Service Life	Mechanical	20 million operations min. (at operating frequency of 18,000 operations/hour)	
	Electrical	See "Characteristic Data"	
Weight		Approx. 8 g (0.28 oz)	

Note: Data shown are of initial value.

### ■ CHARACTERISTIC DATA

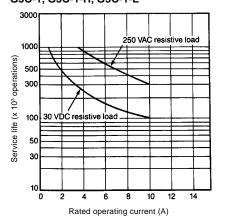
Maximum switching capacity

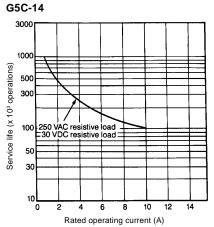
G5C-1, G5C-1-H, G5C-1-L, G5C-14



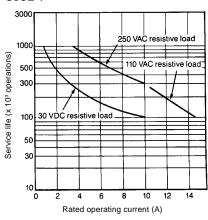
Electrical service life

## G5C-1, G5C-1-H, G5C-1-L

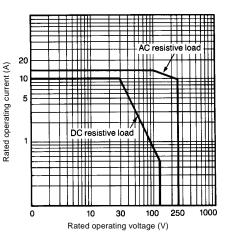




G5CE-1



G5CE-1



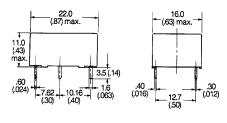
= G5C

# Dimensions.

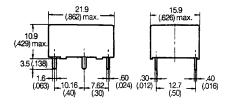
Unit: mm (inch)

#### RELAYS

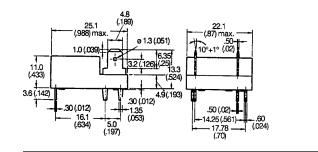










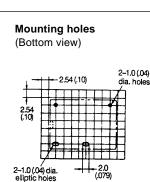


Terminal arrangement/ Internal connections (Bottom view)



Terminal arrangement/ Internal connections (Bottom view)





2.0 (.079)

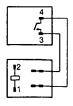
Mounting holes

2-1.0 (.04) dia. holes

(Bottom view)

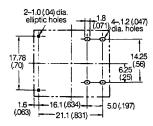
2-1.0 (.04) dia. elliptic holes

Terminal arrangement/ Internal connections (Top view)



(Bottom view)





Note: A tolerance of  $\pm 0.10$  mm (0.004 in) applies to all dimensions.

## APPROVALS

#### UL (File No. E41515)/CSA (File No. LR31928)

Туре	Contact form	Coil ratings	Contact ratings
G5C-1	SPST-NO	3 to 60 VDC	15 A, 125 VAC (Resistive) 100,000 cycles
G5CE-1			10 A, 250 VAC (Resistive) 100,000 cycles
			15 A, 125 VAC (General Purpose) 100,000 cycles
			10 A, 250 VAC (General Purpose) 100,000 cycles
			10 A, 30 VDC (Resistive) 100,000 cycles

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.

G5C	650
	Gol



#### Cat. No. GC RLY6

9/97

Specifications subject to change without notice.

**OMRON CANADA, INC.** 

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