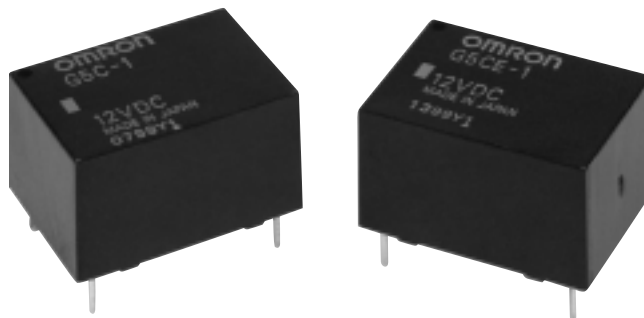




**THE DATASHEET OF
G5CE-1 12VDC**



- 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



Ordering Information

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

Type	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

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

High-sensitivity type

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

Low-sensitivity type

Rated voltage (VDC)	Rated current (mA)	Coil resistance (Ω)	Pick-up voltage	Dropout voltage	Maximum voltage	Power consumption (mW)
			% of rated voltage			
3	120.00	25	80% max.	10% min.	110% at 70°C (158°F)	Approx. 360
5	72.00	69.40				
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 $\pm 10\%$.
 2. The operating characteristics are measured at a coil temperature of 23°C (73°F).

■ CHARACTERISTICS

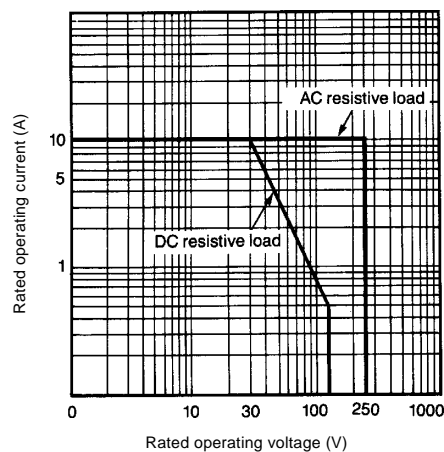
Contact resistance		30 mΩ max.
Operate time		10 ms max. (mean value: 6.70 ms) 15 ms max. for high sensitivity type (mean value: 7.30 ms)
Release time		10 ms max. (mean value: 0.90 ms)
Bounce time		5 ms max. (mean value: 0.90 ms)
Operating frequency	Mechanical	18,000 operations/hour
	Electrical	1,200 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/s ² (approx. 100 G)
	Malfunction durability	200 m/s ² (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.

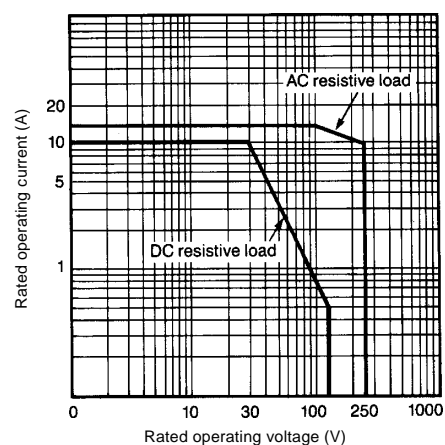
■ CHARACTERISTIC DATA

Maximum switching capacity

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

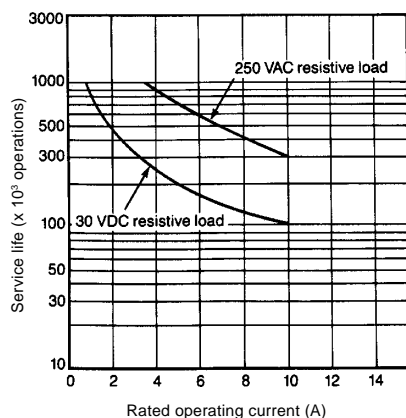


G5CE-1

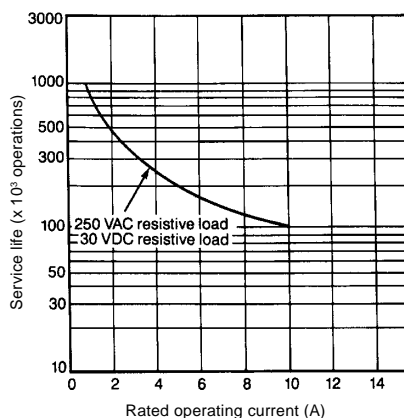


Electrical service life

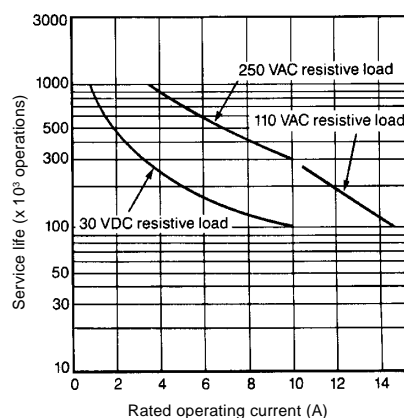
G5C-1, G5C-1-H, G5C-1-L



G5C-14



G5CE-1

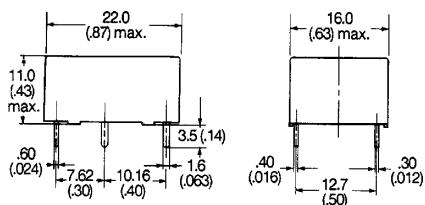


Dimensions

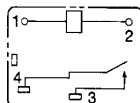
Unit: mm (inch)

■ RELAYS

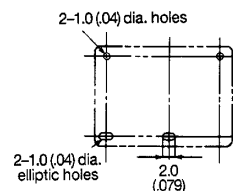
G5C□-1-□



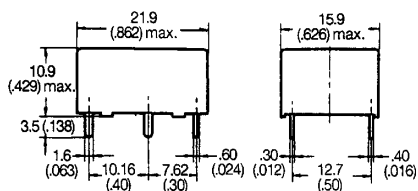
**Terminal arrangement/
Internal connections**
(Bottom view)



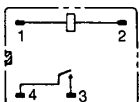
Mounting holes
(Bottom view)



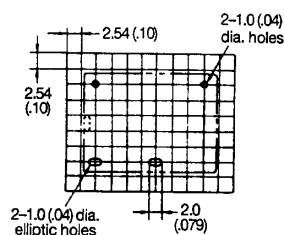
G5C(E)-1



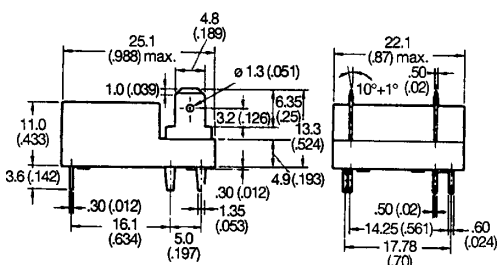
**Terminal arrangement/
Internal connections**
(Bottom view)



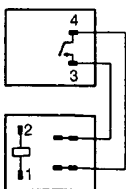
Mounting holes
(Bottom view)



G5CE-1-TP

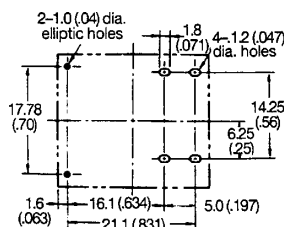


**Terminal arrangement/
Internal connections**
(Top view)



(Bottom view)

Mounting holes
(Bottom view)



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

■ APPROVALS

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

Type	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.

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