

# PCB Relay G5LE

## A Cubic, Single-pole 10-A Power Relay

- Subminiature “sugar cube” relay.
- Contact ratings of 10 A.
- Withstands impulses of up to 4,500 V.
- Two types of seal available: flux protection and plastic-sealed.
- UL class-B insulation certified, UL class-F available.
- Manufacturing facility in compliance with QS9000 automotive quality system standards.
- Ideal for applications in security equipment, household electrical appliances, garage door openers, and audio equipment.



## Ordering Information

To Order: Select the part number and add the desired coil voltage rating, (e.g., G5LE-1-DC12).

Seal	Contact form	Model		
		Contact material		
		AgSnO <sub>2</sub>	AgCdO	AgSnIn
Flux protection	SPDT	G5LE-1	G5LE-1-ACD	G5LE-1-ASI
	SPST-NO	G5LE-1A	G5LE-1A-ACD	G5LE-1A-ASI
Plastic-sealed	SPDT	G5LE-14	G5LE-14-ACD	G5LE-14-ASI
	SPST-NO	G5LE-1A4	G5LE-1A4-ACD	G5LE-1A4-ASI

### MODEL NUMBER LEGEND

G5LE-   -  

1   2   3   4   5

- |   |  |
|---|--|
| <p><b>1. Number of Poles</b><br/>1: 1 pole</p> <p><b>2. Contact Form</b><br/>None: SPDT<br/>A: SPST-NO</p> <p><b>3. Sealing</b><br/>None: Flux-protection<br/>4: Plastic-sealed</p> | <p><b>4. Contact Material</b><br/>None: AgSnO<sub>2</sub><br/>ACD: AgCdO<br/>ASI: AgSnIn</p> <p><b>5. Insulation Class</b><br/>None: Class B insulation<br/>CF: Class F insulation</p> |
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# Specifications

## ■ COIL DATA

Rated voltage	3 VDC	5 VDC	6 VDC	9 VDC	12 VDC	24 VDC	48 VDC
Rated current	136.4 mA	79.4 mA	66.7 mA	45 mA	33.3 mA	16.7 mA	8.33 mA
Coil resistance	22.5 Ω	63 Ω	90 Ω	200 Ω	360 Ω	1,440 Ω	5,760 Ω
Must operate voltage	75% of rated voltage (max.)						
Must release voltage	10% of rated voltage (min.)						
Max. voltage	130% of rated voltage at 70°C (158°F), 170% of rated voltage at 23°C (73°F)						
Power consumption	Approx. 400 mW						

- 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. 360 mW coil is available. Contact Omron for details.
  3. VDE approved model available. Contact Omron for details.

## ■ CONTACT DATA

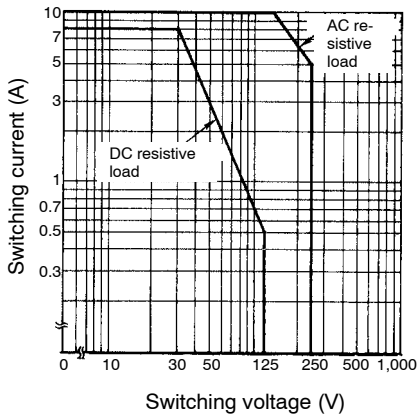
Load	Resistive load (cosφ = 1)	
Rated load	10 A at 120 VAC; 8 A at 30 VDC	
Rated carry current	10 A	
Max. switching voltage	250 VAC, 125 VDC	
Max. switching current	AC	10 A
	DC	8 A
Max. switching capacity	1,200 VA, 240 W	
Min. permissible load	100 mA at 5 VDC	

## ■ CHARACTERISTICS

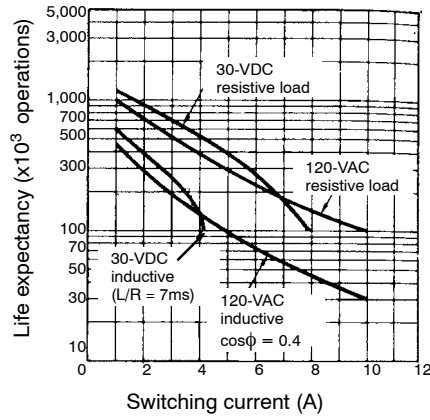
Contact resistance	100 mΩ max.	
Operate time	10 ms max.	
Release time	5 ms max.	
Bounce time	Operate	Approx. 0.6 ms
	Release	Approx. 7.2 ms
Max. switching frequency	Mechanical	18,000 operations/hr
	Electrical	1,800 operations/hr (under rated load)
Insulation resistance	100 MΩ min. (at 500 VDC)	
Dielectric strength	750 VAC, 50/60 Hz for 1 min between contacts of same polarity 2,000 VAC, 50/60 Hz for 1 min between coil and contacts	
Impulse withstand voltage	4,500 V 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> (approx. 100G)
	Malfunction	100 m/s <sup>2</sup> (approx. 10G)
Life expectancy	Mechanical	10,000,000 operations min. (at 18,000 operations/hr)
	Electrical	100,000 operations min. (at 1,800 operations/hr)
Ambient temperature	Operating	-40°C to 85°C (-13°F to 185°F)
Ambient humidity		35% to 85%
Weight	Approx. 12 g (0.42 oz)	

■ CHARACTERISTIC DATA

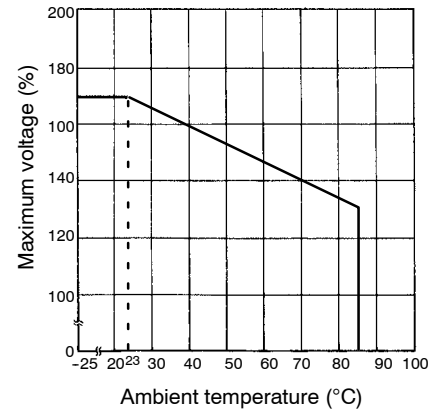
Max. Switching Capacity G5LE



Life Expectancy G5LE



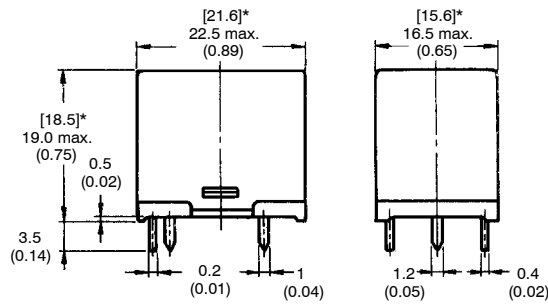
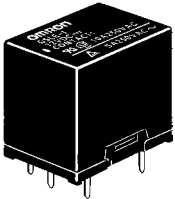
Ambient Temperature vs. Maximum Voltage



Dimensions

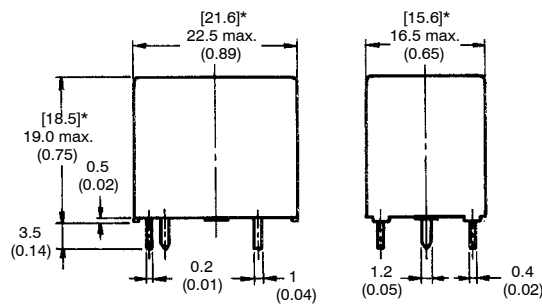
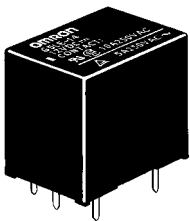
Unit: mm (inch)

■ G5LE-1(A)



\*Average value

■ G5LE-1(A)4



\*Average value