

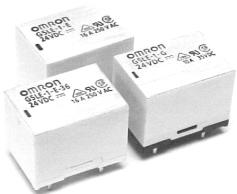
## **PCB Relay**

G5LE-E/-G

## Single-pole 10A35VDC 0.8mm Contact Gap Power Relay : G5LE-G

#### Single-pole 16A250VAC Power Relay: G5LE-E

- Sub-miniature 'sugar cube ' relay with universal terminal footprint.
- UL class-F coil insulation system.
- Tracking resistance: CTI>250.
- Withstands impulse of up to 4,500 V.
- RoHS compliant.









## **Ordering Information**

Enclosure Rating	Contact Form	Rated load	
	Contact Form	10A 35VDC	16A 250VAC
Flux protection	SPDT	G5LE-1-G	G5LE-1-E
	SPST-NO	G5LE-1A-G	G5LE-1A-E

Note: When ordering, add the rated coil voltage to the number.

Examples : G5LE-1-E 12 VDC

Rated coil voltage

#### ■ Model Number Legend

G5LE -  $\frac{1}{2}$   $\frac{1}{2}$  -  $\frac{1}{3}$  -  $\frac{1}{4}$  -  $\frac{1}{5}$  -  $\frac{1}{6}$  -  $\frac{1}{7}$   $\frac{1}{8}$ 

1. Number of Poles

1 : 1 pole

2. Contact Form

None : SPDT A : SPST-NO

3. Enclosure ratings

None : Flux protection

4. Insulation System

None : Class F (155°C)

8 Rated Coil Voltage

5, 12 & 24 (for suffix-E) 9, 12, 20 & 24 (for suffix-G) 5. Classification

G : 0.8mm contact gap type E : High capacity type

6. Coil Power Consumption / Coil Characteristics

None : Approx. 400mW (applicable to suffix -E only)
None : Approx. 700mW (applicable to suffix -G only)
36 : Approx. 360mW (applicable to suffix -E only)

7. Packaging

None : Standards Polystyrene tray
SP : Anti-static Tube packing

# Specifications

#### ■ Coil Ratings 700-mW Type (G5LE-G)

Rated voltage	9 VDC	12 VDC	20 VDC	24 VDC
Rated current	77.8 mA	58.3 mA	35.0 mA	29.2 mA
Coil resistance	115.7 Ω	205.7 Ω	571.4 Ω	822.9 Ω
Must operate voltage	75% of rated voltage (max.)			
Must release voltage	10% of rated voltage (min.)			
Max. voltage	120% of rated voltage at 85°C, 150% of rated voltage at 23°C			
Power consumption	Approx. 700 mW			

**Note:** The rated current and coil resistance are measured at a coil temperature of 23°C with a tolerance of ±10%.

#### 400-mW Type (G5LE-E)

Rated voltage	5 VDC	12 VDC	24 VDC
Rated current	80.0 mA	33.3 mA	16.7 mA
Coil resistance	62.5 $\Omega$ 360.0 $\Omega$ 1440.0 $\Omega$		
Must operate voltage	75% of rated voltage (max.)		
Must release voltage	10% of rated voltage (min.)		
Max. voltage	130% of rated voltage at 85°C, 170% of rated voltage at 23°C		
Power consumption	Approx. 400 mW		

**Note:** The rated current and coil resistance are measured at a coil temperature of 23°C with a tolerance of ±10%.

#### 360-mW Type (G5LE-E-36)

Rated voltage	5 VDC	12 VDC	24 VDC	
Rated current	72.0 mA	30.0 mA	15.0 mA	
Coil resistance	69.4 Ω	400.0 Ω	1600.0 Ω	
Must operate voltage	75% of rated voltage (max.)	75% of rated voltage (max.)		
Must release voltage	10% of rated voltage (min.)	10% of rated voltage (min.)		
Max. voltage	130% of rated voltage at 85°C,	130% of rated voltage at 85°C, 170% of rated voltage at 23°C		
Power consumption	Approx. 360 mW	Approx. 360 mW		

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

#### ■ Contact Ratings

Item	G5LE-G	G5LE-E/-E-36
Load	Resistive load (cos Ø=1)	Resistive load (cos Ø=1)
Rated load	10A at 35VDC	16A at 250VAC
Rated carry current	10A	16A
Max. switching voltage	35VDC	250VAC
Max. switching current	DC : 10A	AC : 16A
Max. switching capacity	350W	4000VA
Min. permissible load	100mA at 5VDC	100mA at 5VDC

#### **■** Characteristics

Contact resistance	100mΩ max.		
Operate time	10ms max.		
Release time	5ms 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		
Insulation resistance	100M $\Omega$ min. (at 500VDC)		
Dielectric strength	750VAC (for suffix -E), 50/60 Hz for 1 min. between contacts of same polarity		
	1500VAC (for suffix -G), 50/60 Hz for 1 min. between contacts of same polarity		
	2,000VAC, 50/60 Hz for 1 min. between coil and contacts		
Impulse withstand voltage	4,500V between coil and contacts, 1.2 X 50 μsec		
Vibration resistance	Destruction : 10 to 55Hz, 1.5mm double amplitude		
	Malfunction : 10 to 55hHz, 1.5mm double amplitude		
Shock resistance	Destruction : 1,000m/s <sup>2</sup> (approx. 100G)		
	Malfunction : 100m/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, 12A 250VAC)		
Ambient temperature	Operating : -40°C to 85°C		
Ambient humidity	Operating : 35% to 85%		
Weight	Approx. : 12g		

**Note:** \* Applicable for G5LE-1-E normally open contact only.

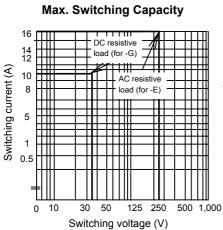
# ■ Approved Standards UL508, UL114, UL478, UL325, UL873, UL1409 (File No. E41643)/CSA C22.2 No. 14, No. 1 (File No. LR31928)

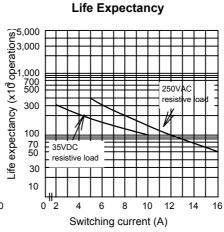
Model	Coil ratings	Contact ratings
G5LE-E/-E-36	5 to 24 VDC	16 A, 250 VAC (general use, normally open contact, 50,000 cycles) 12 A, 250 VAC (general use, normally open contact, 105°C, 100,000 cycles) 12 A, 250 VAC (general use, normally close contact, 30,000 cycles)
G5LE-G	9 to 24 VDC	10 A, 35 VDC (resistive, normally open contact, 100,000 cycles) 10 A, 35 VDC (resistive, normally close contact, 50,000 cycles)

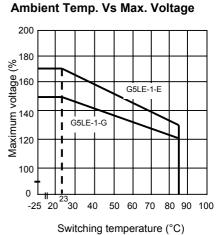
#### EN61810-1 (2nd Ed) / EN60255-25 (VDE Reg. No. 6850)

Model	Coil Rating	Contact rating
G5LE-E/-E-36	5 to 24 VDC	16 A, 250 VAC (resistive, normally open contact, 85°C 50,000 cycles) 12 A, 250 VAC (resistive, normally open contact, 105°C, 75,000 cycles)
G5LE-G	9 to 24 VDC	10 A, 35 VDC (resistive, normally open contact, 100,000 cycles) 10 A, 35 VDC (resistive, normally close contact, 50,000 cycles)

# **Engineering Data**





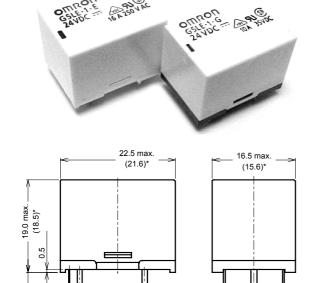


**Iote:** The maximum coil voltage refers to the maximum value in a varyin range of operating power voltage not a continuous voltage

## **Dimensions**

Note: 1. All units are in millimeters unless otherwise indicated.

2. Orientation marks are indicated as follows:

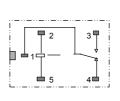


\*Average value

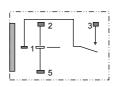
0.2

Terminal
Arrangenement/Internal
Connections
(Bottom View)

SPDT



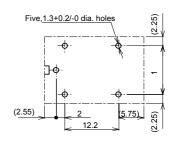
SPST-NO



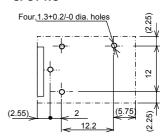
Mounting Holes (Bottom View)

Tolerance: ±0.1 mm unless specified

SPDT



SPST-NO



# Packaging

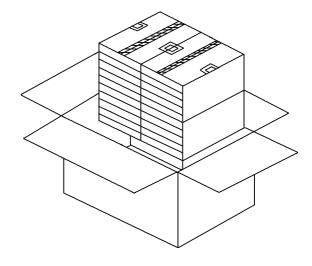
Note: 1. All units are millimeters unless otherwise indicated.

#### Polystyrene Trays Packing

1 Polystyrene 100 pcs relay 1 Sleeve Packing polystyrene tray 1 Carton sleeve packing 2000 pcs relay

Weight = Approx. 24 Kg per carton - Size of polystyrene tray: Approx. 311 x 196 x 35mm (L x W xH)

- Size of Carton: Approx. 450 x 316 x 320 mm (L x W xH)



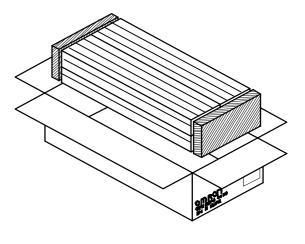
#### **Tube Packing**

1 Tube 25 relays 1 Carton 40 tubes

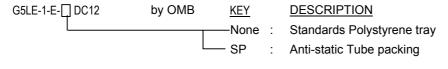
1,000 relays

Weight Approx. 12 Kg per carton

- Size of Carton: Approx. 512 x 252 x 105 mm (L x W xH)



#### Ordering Information - Packaging



G5LE-1-G-∏DC20 by OMB **DESCRIPTION** <u>KEY</u> None: Standards Polystyrene tray

SP Anti-static Tube packing

### **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for General Purpose Relays category:

Click to view products by Omron manufacturer:

Other Similar products are found below:

```
APF30318 JVN1AF-4.5V-F PCN-105D3MHZ 5JO-10000S-SIL 5JO-1000CD-SIL 5JO-400CD-SIL LY2S-AC220/240 LYQ20DC12 6031007G 6131406HQ 6-1393099-3 6-1393099-8 6-1393122-4 6-1393123-2 6-1393767-1 6-1393843-7 6-1415012-1 6-1419102-2 6-1423698-4 6-1608051-6 6-1608067-0 6-1616170-6 6-1616248-2 6-1616282-3 6-1616348-2 6-1616350-1 6-1616350-8 6-1616358-7 6-1616359-9 6-1616360-9 6-1616931-6 6-1617039-1 6-1617052-1 6-1617090-2 6-1617090-5 6-1617347-5 6-1617353-3 6-1617801-8 6-1617802-2 6-1618107-9 6-1618248-4 M83536/1-027M CX-4014 MAHC-5494 MAVCD-5419-6 703XCX-120A 7-1393100-5 7-1393111-7 7-1393144-5 7-1393767-8
```