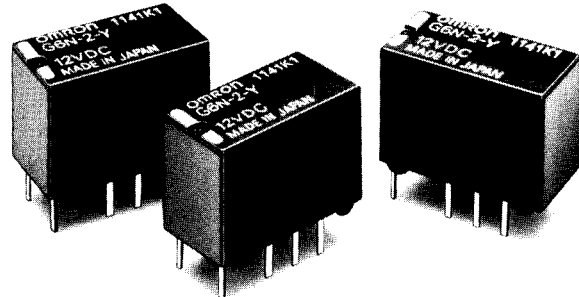


PCB Relay

G6N

Ultracompact, Ultrasensitive DPDT Relay

- Space-saving compact size for high-density mounting on PCB.
- Low power consumption (140 mW), and high sensitivity.
- High surge withstand voltages between open contacts (1,500 V), between coil and contacts (2,500 V).



Ordering Information

Classification		Single-side stable
DPDT	Plastic sealed	G6N-2-Y

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

Example: G6N-2-Y 12 VDC
└───┘ Rated coil voltage

Model Number Legend:

G6N - - VDC
1 2 3 4

- Relay Function**
None: Single-side stable
- Contact Form**
2: DPDT

- Classification**
Y: High dielectric withstand
- Rated Coil Voltage**
3, 5, 6, 9, 12, 24 VDC

Specifications

Coil Ratings (G6N-2-Y)

Rated voltage	3 VDC	5 VDC	6 VDC	9 VDC	12 VDC	24 VDC	
Rated current	46.7 mA	28.1 mA	23.3 mA	15.5 mA	11.7 mA	8.3 mA	
Coil resistance	64.3 Ω	178 Ω	257 Ω	579 Ω	1,028 Ω	2,880 Ω	
Coil inductance (H) (ref. value)	Armature OFF	0.025	0.065	0.11	0.24	0.43	1.2
	Armature ON	0.022	0.058	0.09	0.20	0.37	1.0
Must operate voltage	75% max. of rated voltage						
Must release voltage	10% min. of rated voltage						
Max. voltage	200% of rated voltage at 23°C, 140% at 70°C					170% of rated voltage at 23°C, 120% at 70°C	
Power consumption	Approx. 140 mW					Approx. 200 mW	

- Note:**
1. The rated current and coil resistance are measured at a coil temperature of 23°C with a tolerance of ±10%.
 2. Operating characteristics are measured at a coil temperature of 23°C.
 3. 4.5, 48 VDC (single-side stable) model is also available. Consult OMRON for details.

Available from

■ Contact Ratings

Load	Resistive load ($\cos\phi = 1$)
Rated load	0.5 A at 125 VAC; 1 A at 30 VDC
Contact material	Ag (Au-clad)
Rated carry current	2 A
Max. switching voltage	250 VAC, 220 VDC
Max. switching current	1.25 A
Max. switching capacity	62.5 VA, 30 W
Min. permissible load	10 μ A at 10 mVDC

Note: P level: $\lambda_{60} = 0.1 \times 10^{-6}$ /operation

■ Characteristics

Contact resistance	50 m Ω max.
Operate time	5 ms max. (mean value: approx. 2.5 ms)
Release time	3 ms max. (mean value: approx. 1.5 ms)
Bounce time	Operate: Approx. 0.5 ms Release: Approx. 0.5 ms Set/reset: Approx. 0.5 ms
Max. operating frequency	Mechanical: 36,000 operations/hr Electrical: 1,800 operations/hr (under rated load)
Insulation resistance	1,000 M Ω min. (at 500 VDC)
Dielectric withstand voltage	1,500 VAC, 50/60 Hz for 1 min between coil and contacts 1,000 VAC, 50/60 Hz for 1 min between contacts of different polarity 1,000 VAC, 50/60 Hz for 1 min between contacts of same polarity
Impulse withstand voltage	2,500 V 2 x 10 μ s between coil and contacts 1,500 V 10 x 160 μ s between contacts of same polarity (conforms to FCC Part 68)
Vibration resistance	Destruction: 10 to 55 Hz, 5-mm double amplitude Malfunction: 10 to 55 Hz, 3-mm double amplitude
Shock resistance	Destruction: 1,000 m/s ² (approx. 100G) Malfunction: 500 m/s ² (approx. 50G)
Life expectancy	Mechanical: 100,000,000 operations min. (at 36,000 operations/hr) Electrical: 300,000 operations min. (1 A at 30 VDC, resistive load) 200,000 operations min. (0.5 A at 125 VAC, resistive load)
Ambient temperature	Operating: -40°C to 70°C (with no icing) Storage: -40°C to 70°C (with no icing)
Ambient humidity	Operating: 35% to 85%
Weight	Approx. 3 g

■ Approved Standards

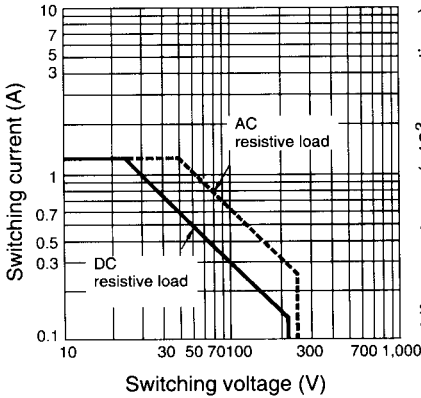
UL478, UL1950 (File No. E41515)/CSA C22.2 No.0, No.14 (File No. LR24825)

Model	Contact form	Coil ratings	Contact ratings
G6N-2-Y	DPDT	3 to 48 VDC	2 A, 30 VDC 0.3 A, 110 VDC 0.5 A, 125 VAC

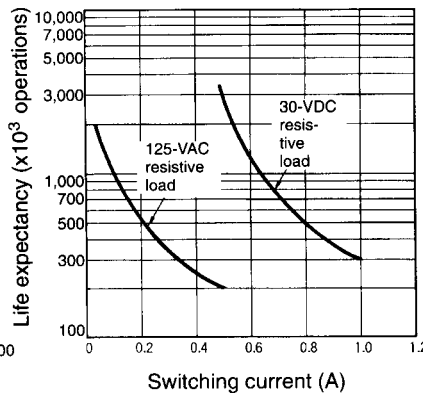
Available from

Engineering Data

Max. Switching Capacity

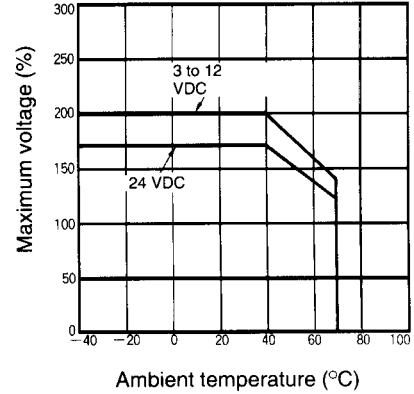


Life Expectancy



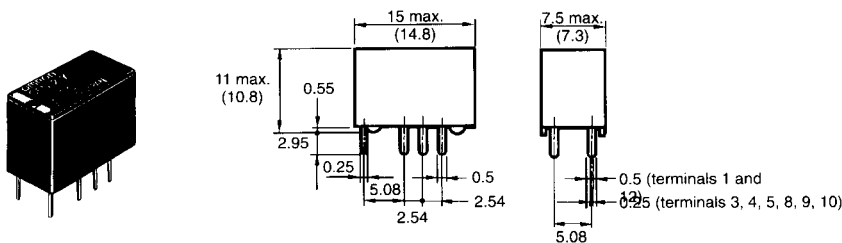
Ambient Temperature vs. Maximum Voltage

Single-side Stable (G6N-2-Y)

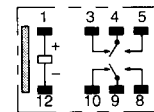


Dimensions

- Note:** 1. All units are in millimeters unless otherwise indicated.
 2. Orientation marks are indicated as follows:

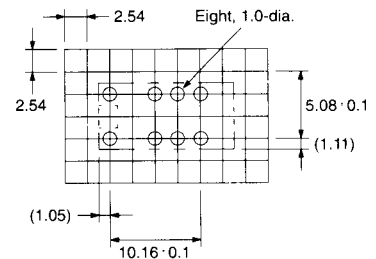


Terminal Arrangement/ Internal Connections (Bottom View)



Mounting Holes (Bottom View)

Tolerance: ± 0.1



Available from

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 Fax: (02) 4969 5067
 Free Call: 1800 818 736
 Email: dgesales@dge.com.au
 Web: www.dge.com.au

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.
 To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

Available from