

Coil Data

Rated voltage (VDC)	Rated current (mA)	Coil resistance (Ω)	Pick-up voltage	Dropout voltage	Maximum voltage	Power consumption (mW)
			% of rated voltage			
5	40	125	70% max.	10% min.	160% at 23°C	Approx. 200
12	16.7	720				
24	8.3	2,880				

- 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. Operating characteristics are measured at a coil temperature of 23°C (73°F).
 3. The pick-up voltage is 75% or less of rated voltage if the relay is mounted upside down.

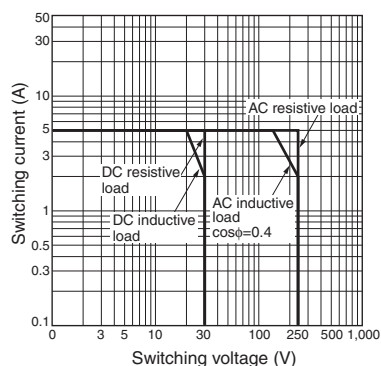
Characteristics

Contact resistance		100 m Ω max.
Operate time		10 ms max.
Release time		5 ms max.
Operating frequency	Mechanical	18,000 operations/hour
	Electrical	1,800 operations/hour (under rated load)
Insulation resistance		1,000 M Ω min. (at 500 VDC)
Dielectric strength		3,000 VAC, 50/60 Hz for 1 minute between coil and contacts
		750 VAC, 50/60 Hz for 1 minute between contacts of the same polarity
Surge withstand voltage		6,000 V, 1.20 x 50 μ s between coil and contacts
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	100 m/s ² (approx. 10 G)
Ambient temperature	Operating	-25° to 70°C (-13° to 158°F)
Humidity		5% to 85% RH
Life expectancy	Mechanical	20 million operations min. (at operating frequency of 18,000 operations/hour)
	Electrical	70,000 operations min. at rated loads (300,000 operations min for 2A at 250 VAC, 30 VDC, resistive load)
Weight		Approx. 3 g (0.10 oz)

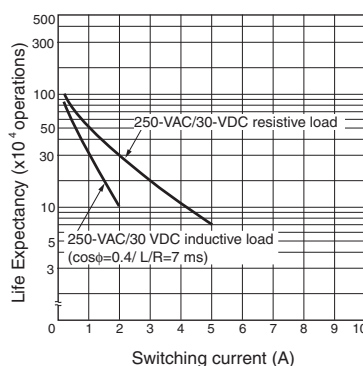
Note: Data shown are of initial value.

Characteristic Data

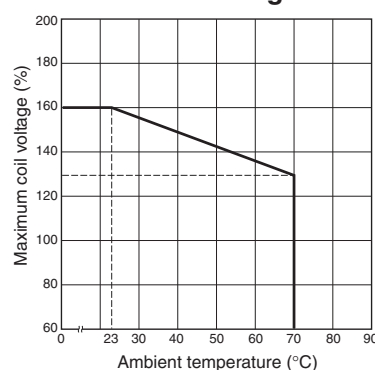
Maximum Switching Capacity



Life Expectancy

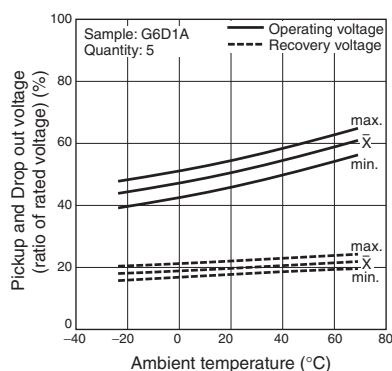


Ambient Temperature vs. Maximum Coil Voltage

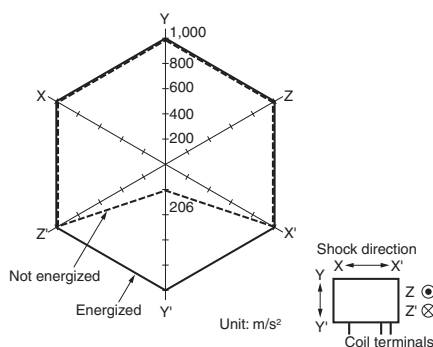


Note: The maximum coil voltage is the maximum voltage that can be applied to the relay coil.

Ambient Temperature vs. Pickup and Drop out Voltage G6D-1A-ASI



Malfunctioning Shock G6D-1A-ASI



Measurement conditions: Impose a shock in the $\pm X$, $\pm Y$, and $\pm Z$ directions three times each with the Relay energized to check the shock values that cause the Relay to malfunction.

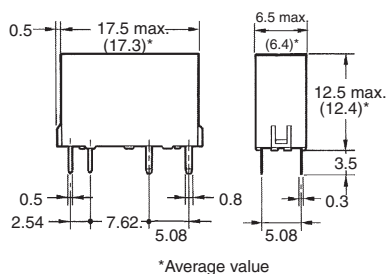
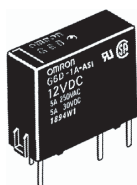
Dimensions

Unit: mm

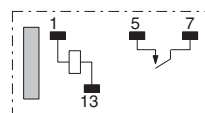
Note: Orientation marks are indicated as follows:  

Relays

G6D-1A-ASI

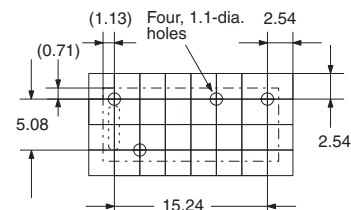


Terminal Arrangement/ Internal Connections (Bottom View)



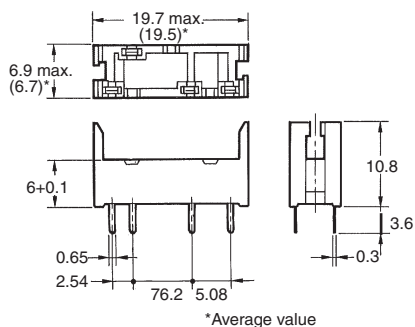
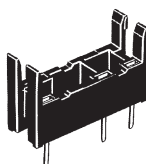
Mounting Holes (Bottom View)

Tolerance: ± 0.1



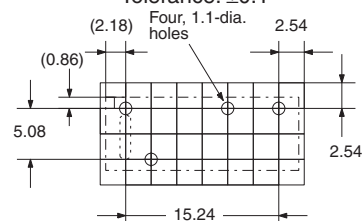
Socket

P6D-04P




Mounting Holes (Bottom View)

Tolerance: ± 0.1



■ Approvals

• The rated values approved by each of the safety standards may be different from the performance characteristics individually defined in this catalog.

UL Recognized  (File No. E41515) - - Ambient Temp. = 40°C

Model	Number of poles	Coil ratings	Contact ratings	Number of test operations
G6D-1A-ASI	1	5 to 24 VDC	5 A, 250 VAC 5 A, 30 VDC	6,000

CSA Certified  (File No. LR31928)

Model	Number of poles	Coil ratings	Contact ratings	Number of test operations
G6D-1A-ASI	1	5 to 24 VDC	5 A, 250 VAC (General Use) 5 A, 30 VDC (Resistive)	6,000

EN/TÜV Approval  (Registration No. R50029064/EN61810-1)

Model	Number of poles	Coil ratings	Contact ratings	Number of test operations
G6D-1A-ASI	1	5, 12, 24 VDC	5 A, 250 VAC ($\cos\phi=1.0$) 5 A, 30 VDC (0 ms)	70,000

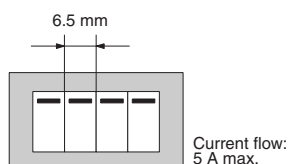
Note: 1. The rated values approved by each of the safety standards (e.g., UL, CSA, TUV) may be different from the performance characteristics individually defined in this catalog.

2. In the interest of product improvement, specifications are subject to change.

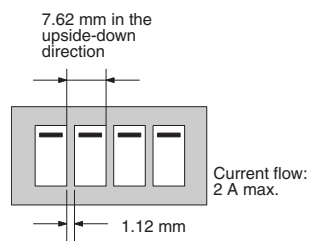
Precautions

■ Spacing Between Relays

More than two relays can be closely mounted right side up as shown in the illustration below.



More than two relays can be closely mounted upside down as shown in the illustration below.



Note: The space between each relay required for heat radiation may vary with operating conditions.

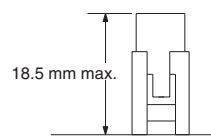
■ Socket Mounting

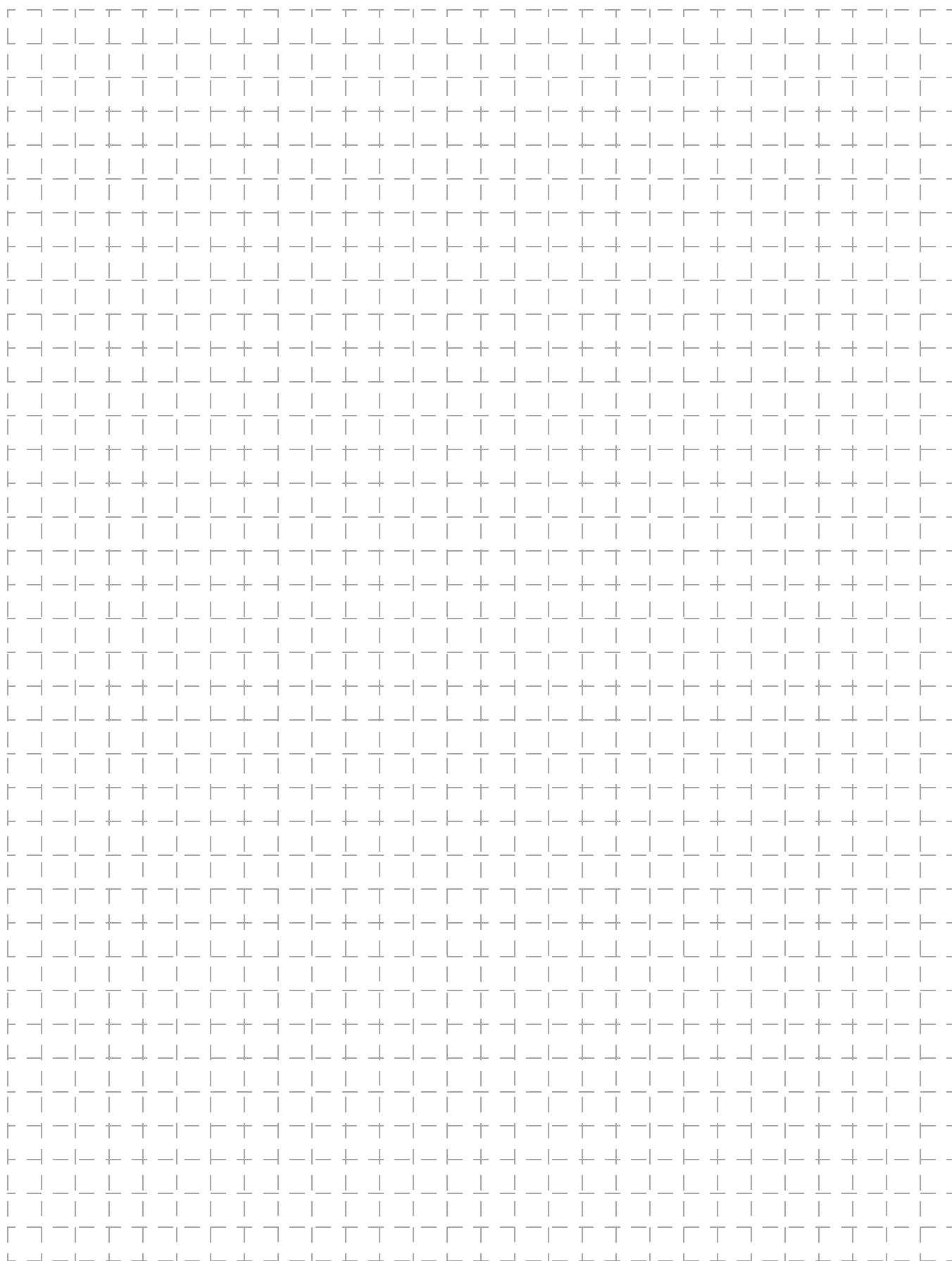
When mounting the relay, insert it into the socket as vertically as possible so that the relay terminals contact securely with the contact pins on the socket.

The P6D-04P socket is flux-resistant. Do not wash the socket with water.

Remove the relay from the socket before soldering the socket to a PC board.

Mounting height





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ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.

To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

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Specifications subject to change without notice

Printed in USA

Power PCB Relay **G6D-ASI**