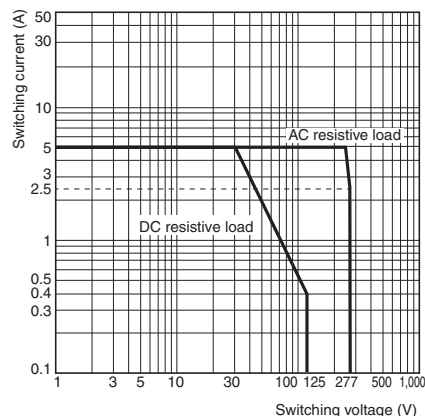


## Engineering Data

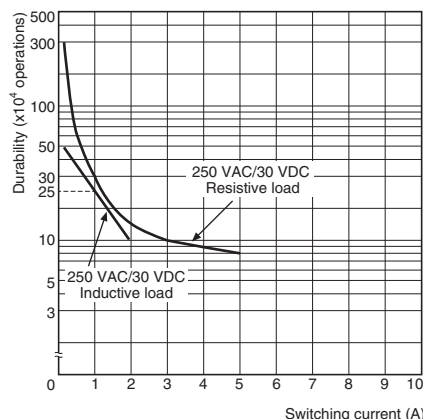
### Maximum Switching Capacity

#### G6DN-1A, G6DN-1A-L



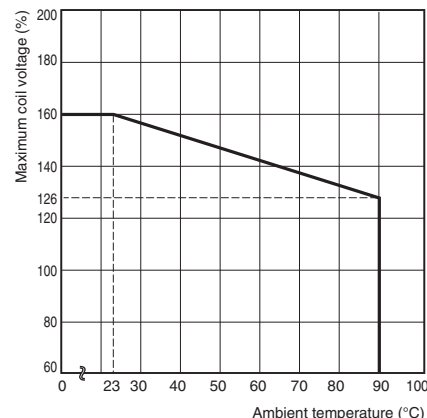
### Durability

#### G6DN-1A



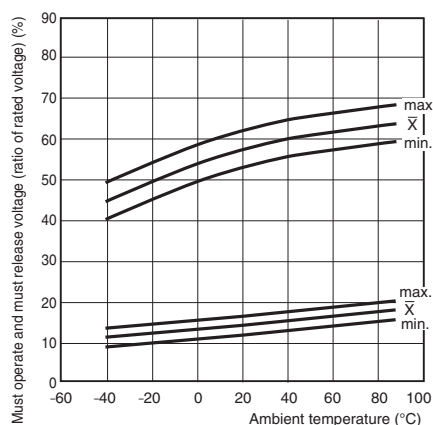
### Ambient Temperature vs. Maximum Coil Voltage

#### G6DN-1A, G6DN-1A-L

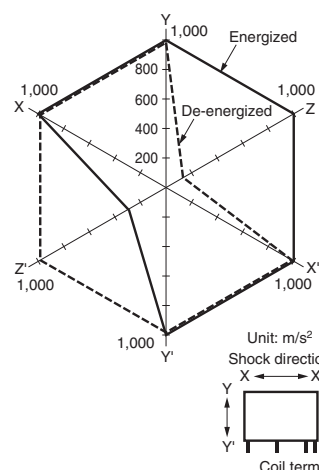


Note. The maximum coil voltage refers to the maximum voltage in a varying range of operating power voltage, not a continuous voltage.

### Ambient Temperature vs. Must Operate and Must Release Voltages G6DN-1A, G6DN-1A-L



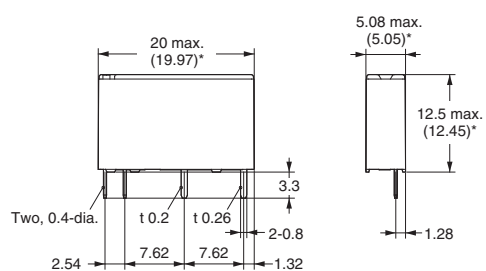
### Shock Malfunction



Sample: G6DN-1A  
Number of Relays: 5 pcs  
Test 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.  
Standard: 100 m/s<sup>2</sup>

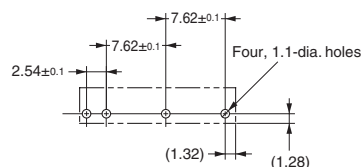
## Dimensions

### G6DN-1A(-L)

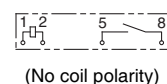


\* Average value

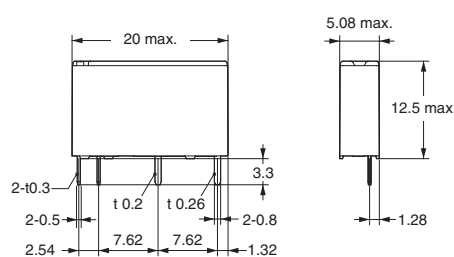
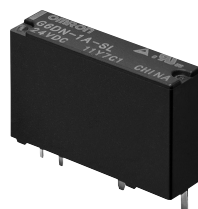
### PCB Mounting Holes (Bottom View)



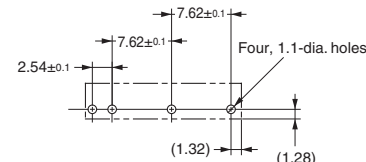
### Terminal Arrangement/ Internal Connections (Bottom View)



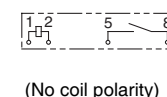
### G6DN-1A-SL



### PCB Mounting Holes (Bottom View)



### Terminal Arrangement/ Internal Connections (Bottom View)



## ■Approved Standards

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

**UL/C-UL-approved models**  (File No. E41515)

| Model        | Contact form | Coil ratings  | Contact ratings                 | Operations |
|--------------|--------------|---------------|---------------------------------|------------|
| G6DN-1A(-SL) | SPST-NO      | 4.5 to 24 VDC | 5 A at 277 VAC (Resistive) 95°C | 6,000      |
|              |              |               | 5 A at 30 VDC (Resistive) 90°C  | 6,000      |
|              |              |               | 3A, 250V ac, Resistive 85°C     | 100,000    |
|              |              |               | 1/10 hp 125 VAC 95°C            | 1,000      |
|              |              |               | 1/10 hp 277 VAC 95°C            | 1,000      |
|              |              |               | D300 120 VAC/240 VAC 95°C       | 6,000      |
|              |              |               | C300 120 VAC/240 VAC 95°C       | 6,000      |
|              |              |               | R300 125 VDC/250 VDC 95°C       | 6,000      |
| G6DN-1A-L    | SPST-NO      | 5 to 24 VDC   | 5 A 250 VAC (Resistive) 95°C    | 100,000    |
|              |              |               | 2 A 250 VAC (General Use) 95°C  | 100,000    |
|              |              |               | 2 A 30 VDC (General Use) 95°C   | 100,000    |
|              |              |               | 1/10 hp 120 VAC 40°C            | 6,000      |
|              |              |               | C300 120 VAC/240 VAC 95°C       | 6,000      |
|              |              |               | D150 120 VAC 95°C               | 6,000      |
|              |              |               | R150 125 VDC 95°C               | 6,000      |

Note. CSA certification CSA 22.2 No.14 can be recognized by C-UL.

**VDE (EN61810-1)**  (Certificate No. 40042696)

| Model     | Contact form | Coil ratings       | Contact ratings                        | Operations |
|-----------|--------------|--------------------|----------------------------------------|------------|
| G6DN-1A   | SPST-NO      | 4.5, 5, 12, 24 VDC | 5 A at 250 VAC ( $\cos\phi=1.0$ ) 90°C | 10,000     |
|           |              |                    | 5 A at 30 VDC (L/R = 0 ms) 90°C        | 10,000     |
| G6DN-1A-L | SPST-NO      | 5, 12, 24 VDC      | 5 A 250 VAC ( $\cos\phi=1.0$ ) 90°C    | 100,000    |
|           |              |                    | 2 A 250 VAC ( $\cos\phi=0.4$ ) 90°C    | 100,000    |
|           |              |                    | 2 A 250 VAC ( $\cos\phi=0.6$ ) 90°C    | 100,000    |
|           |              |                    | 5 A 30 VDC (L/R = 0 ms) 90°C           | 100,000    |
|           |              |                    | 2 A 30 VDC (L/R = 7 ms) 90°C           | 100,000    |

**TÜV (EN61810-1)**  (Registration No. R 50396359)

| Model      | Contact form | Coil ratings  | Contact ratings                        | Operations |
|------------|--------------|---------------|----------------------------------------|------------|
| G6DN-1A-SL | SPST-NO      | 5, 12, 24 VDC | 5 A at 250 VAC ( $\cos\phi=1.0$ ) 90°C | 10,000     |
|            |              |               | 5 A at 30 VDC (L/R = 0 ms) 90°C        | 10,000     |

|                                                 |                     |
|-------------------------------------------------|---------------------|
| Clearance distance                              | 3.5 mm min.         |
| Creepage distance                               | 3.6 mm min.         |
| Type of insulation coil-contact circuit         | Basic (PD.2)        |
| open contact circuit                            | Micro disconnection |
| Rated Insulation voltage                        | 300 V               |
| Pollution degree                                | 2                   |
| Rated voltage system                            | 250 V               |
| Over voltage category                           | II                  |
| Category of protection according to IEC 61810-1 | RT III (Sealed)     |
| Insulation material group                       | I                   |
| Tracking resistance according to IEC 60112      | CTI 600 V min.      |
| Flammability class according to UL94            | V-0                 |
| Coil insulation system according to UL          | Class B             |

## ■Precautions

- Please refer to “PCB Relays Common Precautions” for correct use.