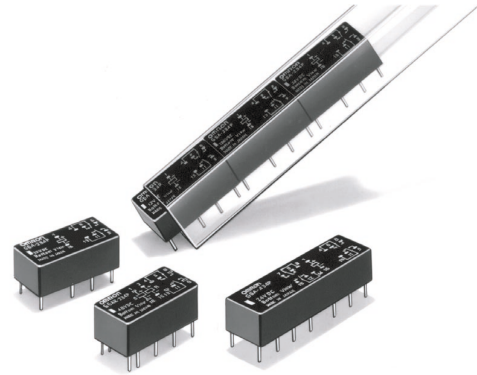


### Fully Sealed Relay with High Impulse Dielectric for Use in Telecommunications Equipment

- High sensitivity can be driven by digital circuits.
- Horizontal design allows use in 1/2-inch PCB racks.
- Impulse withstand voltage meets FCC Part 68 requirements.
- Relays can be mounted side-by-side due to low magnetic leakage.
- Single- and double-winding latching relays also available.
- Special models available for low thermoelectromotive force.



## Ordering Information

### Single-side Stable Type

| Contact         |      | Ag + Au-clad     | AgPd + Au-clad   |
|-----------------|------|------------------|------------------|
| General purpose | DPDT | G6A-274P-ST-US   | G6A-234P-ST-US   |
|                 | 4PDT | G6A-474P-ST-US   | G6A-434P-ST-US   |
| Low-sensitivity | DPDT | G6A-274P-ST40-US | G6A-234P-ST40-US |
|                 | 4PDT | G6A-474P-ST40-US | G6A-434P-ST40-US |

### Single-winding Latching Type

| Contact         |      | Ag + Au-clad    | AgPd + Au-clad  |
|-----------------|------|-----------------|-----------------|
| General purpose | DPDT | G6AU-274P-ST-US | G6AU-234P-ST-US |
|                 | 4PDT | G6AU-474P-ST-US | G6AU-434P-ST-US |

### Double-winding Latching Type

| Contact         |      | Ag + Au-clad      | AgPd + Au-clad    |
|-----------------|------|-------------------|-------------------|
| General purpose | DPDT | G6AK-274P-ST-US   | G6AK-234P-ST-US   |
|                 | 4PDT | G6AK-474P-ST-US   | G6AK-434P-ST-US   |
| Low-sensitivity | DPDT | G6AK-274P-ST40-US | G6AK-234P-ST40-US |
|                 | 4PDT | G6AK-474P-ST40-US | G6AK-434P-ST40-US |

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

Example: G6A-274P-ST-US 12 VDC

Rated coil voltage

### Model Number Legend

G6A  -     -   -   VDC  
 1 2 3 4 5 6 7 8 9

#### 1. Relay Function

None: Single-side stable  
 U: Single-winding latching  
 K: Double-winding latching

#### 2. Contact Form

2: DPDT  
 4: 4PDT

#### 3. Contact Type

7: Bifurcated crossbar  
 Ag (Au-clad) contact  
 3: Bifurcated crossbar  
 AgPd (Au-clad) contact

#### 4. Enclosure Ratings

4: Fully sealed

#### 5. Terminals

P: Straight PCB

#### 6. Stand-off

ST: Stand-off 0.64 mm

#### 7. Special Function

40: Low-sensitivity (400 mW)  
 LT: Low thermoelectromotive force

#### 8. Approved Standards

US: UL, CSA certified

#### 9. Rated Coil Voltage

3, 4.5, 5, 6, 9, 12, 24, 48 VDC

# Specifications

## ■ Coil Ratings

### General-purpose, DPDT Relays

|                                     |                               |         |         |       |         |         |         |                |         |
|-------------------------------------|-------------------------------|---------|---------|-------|---------|---------|---------|----------------|---------|
| Rated voltage                       |                               | 3 VDC   | 4.5 VDC | 5 VDC | 6 VDC   | 9 VDC   | 12 VDC  | 24 VDC         | 48 VDC  |
| Rated current                       |                               | 66.7 mA | 44.6 mA | 40 mA | 33.3 mA | 22.2 mA | 16.7 mA | 8.3 mA         | 4.9 mA  |
| Coil resistance                     |                               | 45 Ω    | 101 Ω   | 125 Ω | 180 Ω   | 405 Ω   | 720 Ω   | 2,880 Ω        | 9,750 Ω |
| Coil inductance<br>(H) (ref. value) | Armature OFF                  | 0.07    | 0.16    | 0.2   | 0.29    | 0.63    | 1.1     | 4.5            | 13.7    |
|                                     | Armature ON                   | 0.065   | 0.14    | 0.18  | 0.26    | 0.57    | 1.06    | 4.1            | 12.5    |
| Must operate voltage                | 70% max. of rated voltage     |         |         |       |         |         |         |                |         |
| Must release voltage                | 10% min. of rated voltage     |         |         |       |         |         |         |                |         |
| Max. voltage                        | 200% of rated voltage at 23°C |         |         |       |         |         |         |                |         |
| Power consumption                   | Approx. 200 mW                |         |         |       |         |         |         | Approx. 235 mW |         |

### General-purpose, 4PDT Relays

|                                     |                               |        |         |         |       |       |        |         |         |
|-------------------------------------|-------------------------------|--------|---------|---------|-------|-------|--------|---------|---------|
| Rated voltage                       |                               | 3 VDC  | 4.5 VDC | 5 VDC   | 6 VDC | 9 VDC | 12 VDC | 24 VDC  | 48 VDC  |
| Rated current                       |                               | 120 mA | 79.9 mA | 72.5 mA | 60 mA | 40 mA | 30 mA  | 15 mA   | 7.5 mA  |
| Coil resistance                     |                               | 25 Ω   | 56.3 Ω  | 69 Ω    | 100 Ω | 225 Ω | 400 Ω  | 1,600 Ω | 6,400 Ω |
| Coil inductance<br>(H) (ref. value) | Armature OFF                  | 0.05   | 0.11    | 0.14    | 0.2   | 0.45  | 0.8    | 3.2     | 12.8    |
|                                     | Armature ON                   | 0.045  | 0.095   | 0.12    | 0.17  | 0.38  | 0.68   | 2.7     | 10.9    |
| Must operate voltage                | 70% max. of rated voltage     |        |         |         |       |       |        |         |         |
| Must release voltage                | 10% min. of rated voltage     |        |         |         |       |       |        |         |         |
| Max. voltage                        | 150% of rated voltage at 23°C |        |         |         |       |       |        |         |         |
| Power consumption                   | Approx. 360 mW                |        |         |         |       |       |        |         |         |

### Low-sensitivity DPDT Relays

|                                     |                               |          |         |        |         |         |         |         |         |
|-------------------------------------|-------------------------------|----------|---------|--------|---------|---------|---------|---------|---------|
| Rated voltage                       |                               | 3 VDC    | 4.5 VDC | 5 VDC  | 6 VDC   | 9 VDC   | 12 VDC  | 24 VDC  | 48 VDC  |
| Rated current                       |                               | 133.3 mA | 88.9 mA | 80 mA  | 66.7 mA | 44.3 mA | 33.3 mA | 16.7 mA | 8.3 mA  |
| Coil resistance                     |                               | 22.5 Ω   | 50.6 Ω  | 62.5 Ω | 90 Ω    | 203 Ω   | 360 Ω   | 1,440 Ω | 5,760 Ω |
| Coil inductance<br>(H) (ref. value) | Armature OFF                  | 0.03     | 0.065   | 0.08   | 0.11    | 0.27    | 0.52    | 2.1     | 7.5     |
|                                     | Armature ON                   | 0.02     | 0.06    | 0.07   | 0.1     | 0.23    | 0.43    | 1.8     | 6.4     |
| Must operate voltage                | 70% max. of rated voltage     |          |         |        |         |         |         |         |         |
| Must release voltage                | 10% min. of rated voltage     |          |         |        |         |         |         |         |         |
| Max. voltage                        | 150% of rated voltage at 23°C |          |         |        |         |         |         |         |         |
| Power consumption                   | Approx. 400 mW                |          |         |        |         |         |         |         |         |

### Low-sensitivity 4PDT Relays

|                                     |                               |          |         |        |         |         |         |         |         |
|-------------------------------------|-------------------------------|----------|---------|--------|---------|---------|---------|---------|---------|
| Rated voltage                       |                               | 3 VDC    | 4.5 VDC | 5 VDC  | 6 VDC   | 9 VDC   | 12 VDC  | 24 VDC  | 48 VDC  |
| Rated current                       |                               | 133.3 mA | 88.9 mA | 80 mA  | 66.7 mA | 44.3 mA | 33.3 mA | 16.7 mA | 8.3 mA  |
| Coil resistance                     |                               | 22.5 Ω   | 50.6 Ω  | 62.5 Ω | 90 Ω    | 203 Ω   | 360 Ω   | 1,440 Ω | 5,760 Ω |
| Coil inductance<br>(H) (ref. value) | Armature OFF                  | 0.035    | 0.1     | 0.12   | 0.17    | 0.42    | 0.7     | 2.8     | 10.2    |
|                                     | Armature ON                   | 0.02     | 0.07    | 0.09   | 0.13    | 0.3     | 0.52    | 2.2     | 8.6     |
| Must operate voltage                | 70% max. of rated voltage     |          |         |        |         |         |         |         |         |
| Must release voltage                | 10% min. of rated voltage     |          |         |        |         |         |         |         |         |
| Max. voltage                        | 150% of rated voltage at 23°C |          |         |        |         |         |         |         |         |
| Power consumption                   | Approx. 400 mW                |          |         |        |         |         |         |         |         |

## Single-winding Latching, DPDT Relays

|                                  |                               |              |              |              |              |                |                |                 |
|----------------------------------|-------------------------------|--------------|--------------|--------------|--------------|----------------|----------------|-----------------|
| Rated voltage                    | 3 VDC                         | 4.5 VDC      | 5 VDC        | 6 VDC        | 9 VDC        | 12 VDC         | 24 VDC         | 48 VDC          |
| Rated current                    | 33.7 mA                       | 22.2 mA      | 20 mA        | 16.7 mA      | 11.1 mA      | 8.3 mA         | 4.2 mA         | 2.5 mA          |
| Coil resistance                  | 89 $\Omega$                   | 202 $\Omega$ | 250 $\Omega$ | 360 $\Omega$ | 810 $\Omega$ | 1,440 $\Omega$ | 5,760 $\Omega$ | 19,000 $\Omega$ |
| Coil inductance (H) (ref. value) | Armature OFF                  | 0.15         | 0.34         | 0.44         | 0.64         | 1.38           | 2.5            | 28.5            |
|                                  | Armature ON                   | 0.11         | 0.25         | 0.35         | 0.48         | 1.07           | 2              | 22              |
| Must operate voltage             | 70% max. of rated voltage     |              |              |              |              |                |                |                 |
| Must release voltage             | 70% max. of rated voltage     |              |              |              |              |                |                |                 |
| Max. voltage                     | 200% of rated voltage at 23°C |              |              |              |              |                |                |                 |
| Power consumption                | Approx. 100 mW                |              |              |              |              |                | Approx. 120 mW |                 |

## Single-winding Latching, 4PDT Relays

|                                  |                               |               |               |                |              |              |                |                |
|----------------------------------|-------------------------------|---------------|---------------|----------------|--------------|--------------|----------------|----------------|
| Rated voltage                    | 3 VDC                         | 4.5 VDC       | 5 VDC         | 6 VDC          | 9 VDC        | 12 VDC       | 24 VDC         | 48 VDC         |
| Rated current                    | 106.8 mA                      | 71.2 mA       | 64 mA         | 53.3 mA        | 35.6 mA      | 26.7 mA      | 13.3 mA        | 6.7 mA         |
| Coil resistance                  | 28.1 $\Omega$                 | 63.2 $\Omega$ | 78.1 $\Omega$ | 112.5 $\Omega$ | 253 $\Omega$ | 450 $\Omega$ | 1,800 $\Omega$ | 7,200 $\Omega$ |
| Coil inductance (H) (ref. value) | Armature OFF                  | 0.03          | 0.06          | 0.08           | 0.11         | 0.25         | 0.45           | 1.8            |
|                                  | Armature ON                   | 0.02          | 0.04          | 0.06           | 0.08         | 0.18         | 0.32           | 1.3            |
| Must operate voltage             | 70% max. of rated voltage     |               |               |                |              |              |                |                |
| Must release voltage             | 70% max. of rated voltage     |               |               |                |              |              |                |                |
| Max. voltage                     | 150% of rated voltage at 23°C |               |               |                |              |              |                |                |
| Power consumption                | Approx. 320 mW                |               |               |                |              |              |                |                |

## Double-winding Latching, DPDT Relays

|                                  |                               |              |                |              |              |              |                |                 |     |
|----------------------------------|-------------------------------|--------------|----------------|--------------|--------------|--------------|----------------|-----------------|-----|
| Rated voltage                    | 3 VDC                         | 4.5 VDC      | 5 VDC          | 6 VDC        | 9 VDC        | 12 VDC       | 24 VDC         | 48 VDC          |     |
| Rated current                    | 66.7 mA                       | 40.2 mA      | 36 mA          | 30 mA        | 20 mA        | 15 mA        | 7.5 mA         | 4.2 mA          |     |
| Coil resistance                  | 45 $\Omega$                   | 112 $\Omega$ | 139 $\Omega$   | 200 $\Omega$ | 450 $\Omega$ | 800 $\Omega$ | 3,200 $\Omega$ | 11,520 $\Omega$ |     |
| Coil inductance (H) (ref. value) | Set                           | Armature OFF | 0.037          | 0.09         | 0.11         | 0.16         | 0.38           | 0.6             | 2.1 |
|                                  |                               | Armature ON  | 0.027          | 0.065        | 0.08         | 0.12         | 0.28           | 0.45            | 1.5 |
|                                  | Reset                         | Armature OFF | 0.027          | 0.065        | 0.08         | 0.12         | 0.28           | 0.45            | 1.5 |
|                                  |                               | Armature ON  | 0.037          | 0.09         | 0.11         | 0.16         | 0.38           | 0.6             | 2.1 |
| Must operate voltage             | 70% max. of rated voltage     |              |                |              |              |              |                |                 |     |
| Must release voltage             | 70% max. of rated voltage     |              |                |              |              |              |                |                 |     |
| Max. voltage                     | 200% of rated voltage at 23°C |              |                |              |              |              |                |                 |     |
| Power consumption                | Approx. 200 mW                |              | Approx. 180 mW |              |              |              |                | Approx. 200 mW  |     |

## Double-winding Latching, 4PDT Relays

|                                  |                               |               |               |                |              |              |                |                |     |
|----------------------------------|-------------------------------|---------------|---------------|----------------|--------------|--------------|----------------|----------------|-----|
| Rated voltage                    | 3 VDC                         | 4.5 VDC       | 5 VDC         | 6 VDC          | 9 VDC        | 12 VDC       | 24 VDC         | 48 VDC         |     |
| Rated current                    | 106.8 mA                      | 71.2 mA       | 64 mA         | 53.3 mA        | 35.6 mA      | 26.7 mA      | 13.3 mA        | 6.7 mA         |     |
| Coil resistance                  | 28.1 $\Omega$                 | 63.2 $\Omega$ | 78.1 $\Omega$ | 112.5 $\Omega$ | 253 $\Omega$ | 450 $\Omega$ | 1,800 $\Omega$ | 7,200 $\Omega$ |     |
| Coil inductance (H) (ref. value) | Set                           | Armature OFF  | 0.03          | 0.06           | 0.08         | 0.11         | 0.25           | 0.45           | 1.8 |
|                                  |                               | Armature ON   | 0.02          | 0.04           | 0.06         | 0.08         | 0.18           | 0.32           | 1.3 |
|                                  | Reset                         | Armature OFF  | 0.02          | 0.04           | 0.06         | 0.08         | 0.18           | 0.32           | 1.3 |
|                                  |                               | Armature ON   | 0.03          | 0.06           | 0.08         | 0.11         | 0.25           | 0.45           | 1.8 |
| Must operate voltage             | 70% max. of rated voltage     |               |               |                |              |              |                |                |     |
| Must release voltage             | 70% max. of rated voltage     |               |               |                |              |              |                |                |     |
| Max. voltage                     | 150% of rated voltage at 23°C |               |               |                |              |              |                |                |     |
| Power consumption                | Approx. 320 mW                |               |               |                |              |              |                |                |     |

### Double-winding Latching, Low-sensitivity DPDT Relays

|                                  |       |                               |         |         |       |       |        |         |         |     |
|----------------------------------|-------|-------------------------------|---------|---------|-------|-------|--------|---------|---------|-----|
| Rated voltage                    |       | 3 VDC                         | 4.5 VDC | 5 VDC   | 6 VDC | 9 VDC | 12 VDC | 24 VDC  | 48 VDC  |     |
| Rated current                    |       | 120 mA                        | 79.9 mA | 72.5 mA | 60 mA | 40 mA | 30 mA  | 15 mA   | 7.5 mA  |     |
| Coil resistance                  |       | 25 Ω                          | 56.3 Ω  | 69 Ω    | 100 Ω | 225 Ω | 400 Ω  | 1,600 Ω | 6,400 Ω |     |
| Coil inductance (H) (ref. value) | Set   | Armature OFF                  | 0.015   | 0.04    | 0.05  | 0.07  | 0.16   | 0.28    | 1.1     | 4   |
|                                  |       | Armature ON                   | 0.01    | 0.025   | 0.035 | 0.05  | 0.12   | 0.2     | 0.75    | 2.9 |
|                                  | Reset | Armature OFF                  | 0.01    | 0.025   | 0.035 | 0.05  | 0.12   | 0.2     | 0.75    | 2.9 |
|                                  |       | Armature ON                   | 0.015   | 0.04    | 0.05  | 0.07  | 0.16   | 0.28    | 1.1     | 4   |
| Must operate voltage             |       | 70% max. of rated voltage     |         |         |       |       |        |         |         |     |
| Must release voltage             |       | 70% max. of rated voltage     |         |         |       |       |        |         |         |     |
| Max. voltage                     |       | 150% of rated voltage at 23°C |         |         |       |       |        |         |         |     |
| Power consumption                |       | Approx. 360 mW                |         |         |       |       |        |         |         |     |

### Double-winding Latching, Low-sensitivity 4PDT Relays

|                                  |       |                               |         |         |       |       |        |         |         |     |
|----------------------------------|-------|-------------------------------|---------|---------|-------|-------|--------|---------|---------|-----|
| Rated voltage                    |       | 3 VDC                         | 4.5 VDC | 5 VDC   | 6 VDC | 9 VDC | 12 VDC | 24 VDC  | 48 VDC  |     |
| Rated current                    |       | 120 mA                        | 79.9 mA | 72.5 mA | 60 mA | 40 mA | 30 mA  | 15 mA   | 7.5 mA  |     |
| Coil resistance                  |       | 25 Ω                          | 56.3 Ω  | 69 Ω    | 100 Ω | 225 Ω | 400 Ω  | 1,600 Ω | 6,400 Ω |     |
| Coil inductance (H) (ref. value) | Set   | Armature OFF                  | 0.02    | 0.045   | 0.065 | 0.09  | 0.18   | 0.3     | 1.2     | 4.4 |
|                                  |       | Armature ON                   | 0.015   | 0.035   | 0.05  | 0.075 | 0.14   | 0.23    | 0.82    | 3.2 |
|                                  | Reset | Armature OFF                  | 0.015   | 0.035   | 0.05  | 0.075 | 0.14   | 0.23    | 0.82    | 3.2 |
|                                  |       | Armature ON                   | 0.02    | 0.045   | 0.065 | 0.09  | 0.18   | 0.3     | 1.2     | 4.4 |
| Must operate voltage             |       | 70% max. of rated voltage     |         |         |       |       |        |         |         |     |
| Must release voltage             |       | 70% max. of rated voltage     |         |         |       |       |        |         |         |     |
| Max. voltage                     |       | 150% of rated voltage at 23°C |         |         |       |       |        |         |         |     |
| Power consumption                |       | Approx. 360 mW                |         |         |       |       |        |         |         |     |

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

### ■ Contact Ratings

| Item                                  | G6A-234P-ST(40)-US/434P-ST(40)-US    |  | G6A-274P-ST(40)-US/474P-ST(40)-US    |  |
|---------------------------------------|--------------------------------------|--|--------------------------------------|--|
| <b>Load</b>                           | Resistive load<br>( $\cos\phi = 1$ ) | Inductive load<br>( $\cos\phi = 0.4$ ; L/R = 7 ms) | Resistive load<br>( $\cos\phi = 1$ ) | Inductive load<br>( $\cos\phi = 0.4$ ; L/R = 7 ms) |
| <b>Rated load</b>                     | 0.3 A at 125 VAC;<br>1 A at 30 VDC   | 0.2 A at 125 VAC;<br>0.5 A at 30 VDC               | 0.5 A at 125 VAC;<br>2 A at 30 VDC   | 0.3 A at 125 VAC;<br>1 A at 30 VDC                 |
| <b>Contact material</b>               | AgPd (Au-clad)                       |  | Ag (Au-clad)                         |  |
| <b>Rated carry current</b>            | 3 A                                  |  |                                      |  |
| <b>Max. switching voltage</b>         | 250 VAC, 220 VDC                     |  |                                      |  |
| <b>Max. switching current</b>         | 2 A                                  | 1 A  | 2 A                                  | 1 A  |
| <b>Max. switching power</b>           | 125 VA, 60 W                         | 62.5 VA, 30 W                                      | 125 VA, 60 W                         | 62.5 VA, 30 W                                      |
| <b>Failure rate (reference value)</b> | 0.01 mA at 10 mVDC                   |  |                                      |  |

| Item                                  | G6AK-234P-ST(40)-US/G6AK-434P-ST(40)-US<br>G6AU-234P-ST-US/G6AU-434P-ST-US |  | G6AK-274P-ST(40)-US/G6AK-474P-ST(40)-US<br>G6AU-274P-ST-US/G6AU-474P-ST-US |  |
|---------------------------------------|--|--|--|--|
| <b>Load</b>                           | Resistive load<br>( $\cos\phi = 1$ )                                       | Inductive load<br>( $\cos\phi = 0.4$ ; L/R = 7 ms) | Resistive load<br>( $\cos\phi = 1$ )                                       | Inductive load<br>( $\cos\phi = 0.4$ ; L/R = 7 ms) |
| <b>Rated load</b>                     | 0.3 A at 125 VAC;<br>1 A at 30 VDC   | 0.2 A at 125 VAC;<br>0.5 A at 30 VDC               | 0.5 A at 125 VAC;<br>2 A at 30 VDC   | 0.25 A at 125 VAC;<br>1 A at 30 VDC                |
| <b>Contact material</b>               | AgPd (Au-clad)   |  | Ag (Au-clad)   |  |
| <b>Rated carry current</b>            | 3 A  |  |  |  |
| <b>Max. switching voltage</b>         | 250 VAC, 220 VDC   |  |  |  |
| <b>Max. switching current</b>         | 2 A  | 1 A  | 2 A  | 1 A  |
| <b>Max. switching power</b>           | 125 VA, 60 W   | 62.5 VA, 30 W                                      | 125 VA, 60 W   | 62.5 VA, 30 W                                      |
| <b>Failure rate (reference value)</b> | 0.01 mA at 10 mVDC   |  |  |  |

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

## ■ Characteristics

|                                    |   |
|------------------------------------|---|
| <b>Contact resistance</b>          | 50 mΩ max.  |
| <b>Operate (set) time</b>          | Single-side stable types:<br>DPDT: 5 ms max. (mean value: approx. 3 ms)<br>4PDT: 7 ms max. (mean value: approx. 3.8 ms)<br>Latching types:<br>DPDT: 5 ms max. (mean value: approx. 2.5 ms)<br>4PDT: 7 ms max. (mean value: approx. 3.3 ms)                    |
| <b>Release (reset) time</b>        | Single-side stable types:<br>DPDT: 3 ms max. (mean value: approx. 1.2 ms)<br>4PDT: 5 ms max. (mean value: approx. 1.3 ms)<br>Latching types:<br>DPDT: 5 ms max. (mean value: approx. 2.5 ms)<br>4PDT: 7 ms max. (mean value: approx. 2.7 ms)                  |
| <b>Bounce time</b>                 | Operate: mean value: approx. 0.5 ms<br>Release: mean value: approx. 0.5 ms  |
| <b>Min. set/reset signal width</b> | DPDT: 7 ms min.<br>4PDT: 15 ms min.   |
| <b>Max. operating frequency</b>    | Mechanical: 36,000 operations/hr<br>Electrical: 1,800 operations/hr (under rated load)  |
| <b>Insulation resistance</b>       | 1,000 MΩ min. (at 500 VDC); except for set-reset  |
| <b>Dielectric strength</b>         | 1,000 VAC, 50/60 Hz for 1 min between coil and contacts<br>1,000 VAC, 50/60 Hz for 1 min between contacts of different polarity<br>1,000 VAC, 50/60 Hz for 1 min between contacts of same polarity<br>250 VAC, 50/60 Hz for 1 min between set and reset coils |
| <b>Impulse withstand voltage</b>   | 1,500 V (10 x 160 μs) (conforms to FCC Part 68)   |
| <b>Vibration resistance</b>        | Destruction: 10 to 55 to 10 Hz, 2.5-mm single amplitude (5-mm double amplitude)<br>Malfunction: 10 to 55 to 10 Hz, 1.65-mm single amplitude (3.3-mm double amplitude)   |
| <b>Shock resistance</b>            | Destruction: 1,000 m/s <sup>2</sup> (approx. 100G)<br>Malfunction: DPDT: 500 m/s <sup>2</sup> (approx. 50G)<br>4PDT, Latching type: 300 m/s <sup>2</sup> (approx. 30G)  |
| <b>Endurance</b>                   | Mechanical: 100,000,000 operations min. (at 36,000 operations/hr)<br>Electrical: 500,000 operations min. (at 1,800 operations/hr)   |
| <b>Ambient temperature</b>         | Operating: -40°C to 70°C (with no icing)  |
| <b>Ambient humidity</b>            | Operating: 5% to 85%  |
| <b>Weight</b>                      | DPDT: Approx. 3.5 g<br>4PDT: Approx. 6 g  |

**Note** The data shown above are initial values.

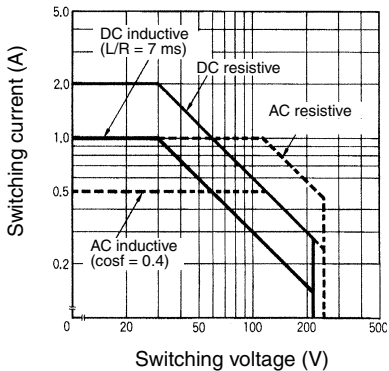
## ■ Approved Standards

UL114, UL478 (File No. E41515)/CSA C22.2 No.0, No.14 (File No. LR24825)

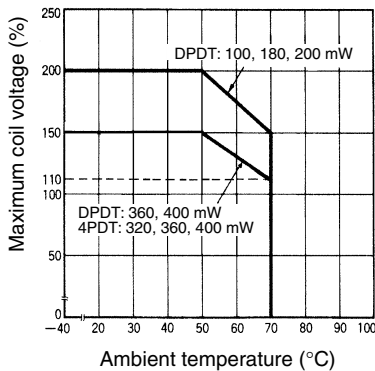
| Model  | Contact form | Coil ratings | Contact ratings                                 |
|--|--------------|--------------|---|
| G6A-234P-ST(40)-US<br>G6AK-234P-ST(40)-US<br>G6AU-234P-ST-US | DPDT         | 3 to 48 VDC  | 0.6 A, 125 VAC<br>1 A, 30 VDC<br>0.6 A, 110 VDC |
| G6A-274P-ST(40)-US<br>G6AK-274P-ST(40)-US<br>G6AU-274P-ST-US | DPDT         |              | 0.6 A, 125 VAC<br>2 A, 30 VDC<br>0.6 A, 110 VDC |
| G6A-434P-ST(40)-US<br>G6AK-434P-ST(40)-US<br>G6AU-434P-ST-US | 4PDT         |              | 0.6 A, 125 VAC<br>1 A, 30 VDC<br>0.6 A, 110 VDC |
| G6A-474P-ST(40)-US<br>G6AK-474P-ST(40)-US<br>G6AU-474P-ST-US | 4PDT         |              | 0.6 A, 125 VAC<br>2 A, 30 VDC<br>0.6 A, 110 VDC |

# Engineering Data

**Maximum Switching Power  
DPDT, 4PDT**

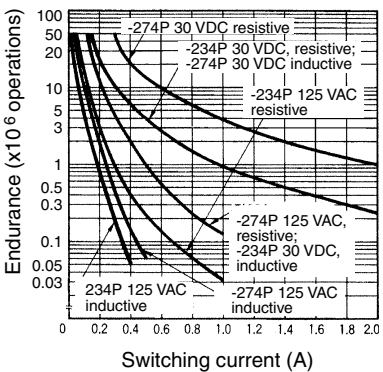


**Ambient Temperature vs.  
Maximum Coil Voltage**

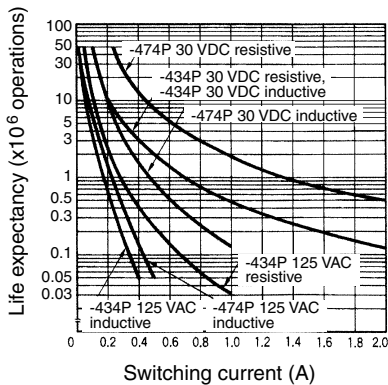


**Note:** The maximum coil voltage refers to the maximum value in a varying range of operating power voltage, not a continuous voltage.



**Endurance  
DPDT**



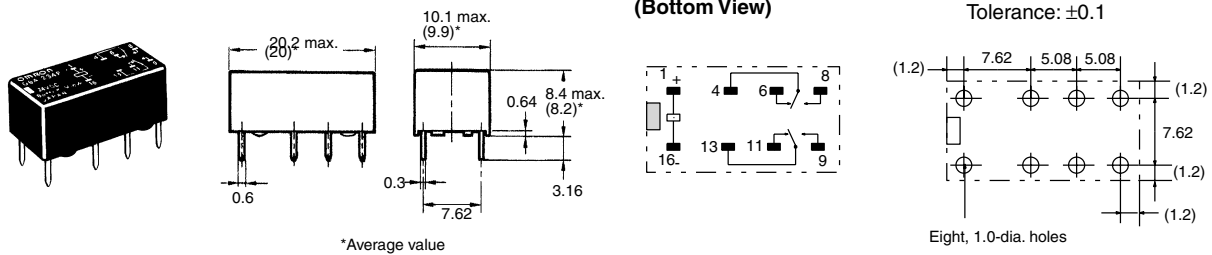
**4PDT**



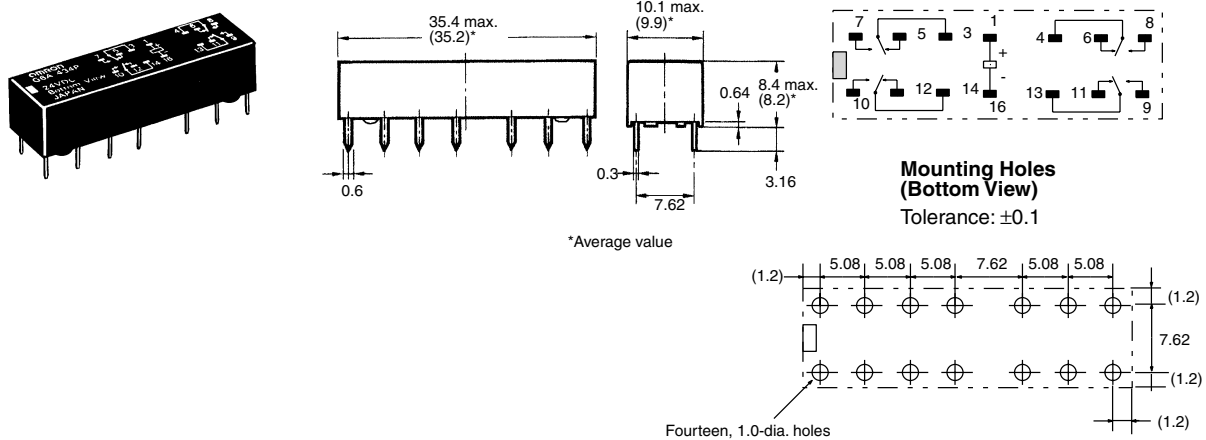
## Dimensions

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

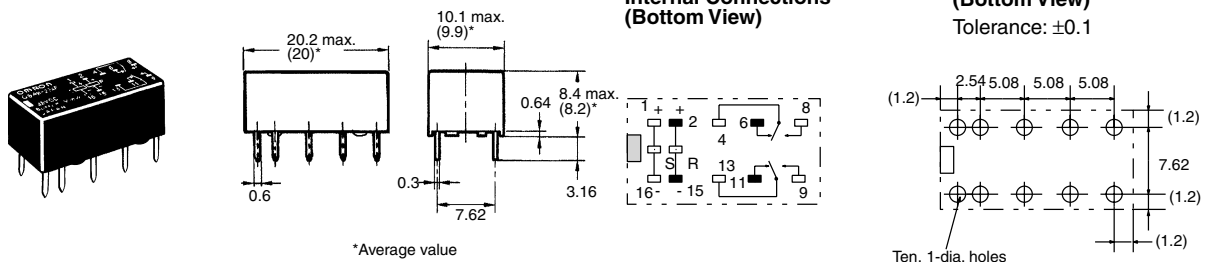
### G6A-234P-ST(40)-US, G6A-274P-ST(40)-US



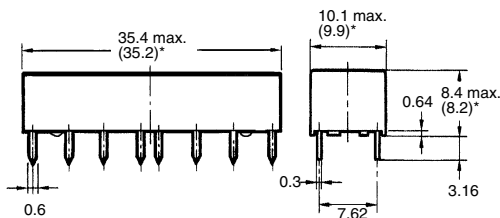
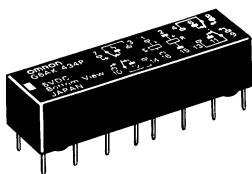
### G6A-434P-ST(40)-US, G6A-474P-ST-US



### G6AK-234P-ST(40)-US, G6AK-274P-ST(40)-US

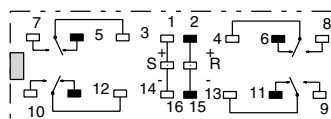


**G6AK-434P-ST(40)-US,  
G6AK-474P-ST(40)-US**



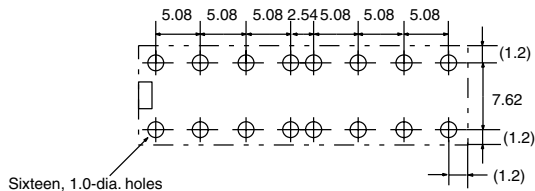
\*Average value

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

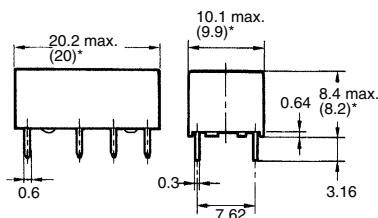
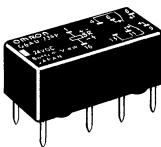


**Mounting Holes  
(Bottom View)**

Tolerance:  $\pm 0.1$

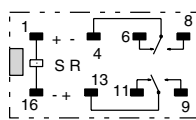


**G6AU-234P-ST-US,  
G6AU-274P-ST-US**



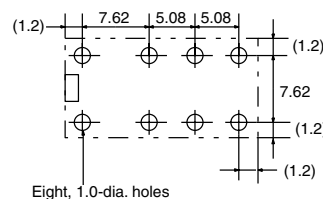
\*Average value

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

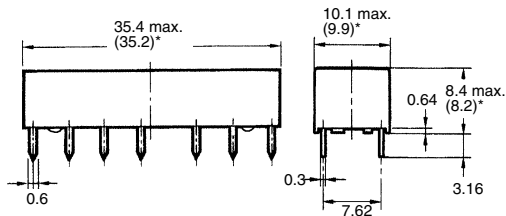
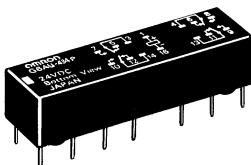


**Mounting Holes  
(Bottom View)**

Tolerance:  $\pm 0.1$

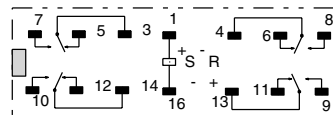


**G6AU-434P-US,  
G6AU-474P-ST-US**



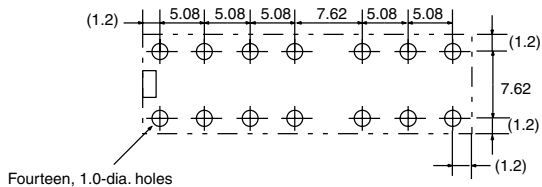
\*Average value

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



**Mounting Holes  
(Bottom View)**

Tolerance:  $\pm 0.1$



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