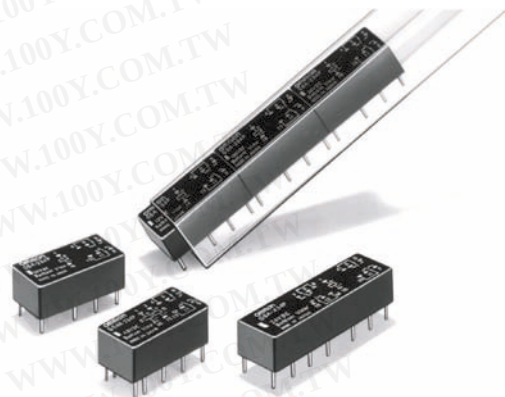


### Fully Sealed Relay with High Impulse Dielectric for Use in Telecommunications Equipment

- 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

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# 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 $\Omega$                   | 101 $\Omega$ | 125 $\Omega$ | 180 $\Omega$ | 405 $\Omega$ | 720 $\Omega$ | 2,880 $\Omega$ | 9,750 $\Omega$ |
| Coil inductance (H) (ref. value) | Armature OFF                  | 0.07         | 0.16         | 0.2          | 0.29         | 0.63         | 1.1            | 4.5            |
|                                  | Armature ON                   | 0.065        | 0.14         | 0.18         | 0.26         | 0.57         | 1.06           | 4.1            |
| 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 $\Omega$                   | 56.3 $\Omega$ | 69 $\Omega$ | 100 $\Omega$ | 225 $\Omega$ | 400 $\Omega$ | 1,600 $\Omega$ | 6,400 $\Omega$ |
| Coil inductance (H) (ref. value) | Armature OFF                  | 0.05          | 0.11        | 0.14         | 0.2          | 0.45         | 0.8            | 3.2            |
|                                  | Armature ON                   | 0.045         | 0.095       | 0.12         | 0.17         | 0.38         | 0.68           | 2.7            |
| 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 $\Omega$                 | 50.6 $\Omega$ | 62.5 $\Omega$ | 90 $\Omega$ | 203 $\Omega$ | 360 $\Omega$ | 1,440 $\Omega$ | 5,760 $\Omega$ |
| Coil inductance (H) (ref. value) | Armature OFF                  | 0.03          | 0.065         | 0.08        | 0.11         | 0.27         | 0.52           | 2.1            |
|                                  | Armature ON                   | 0.02          | 0.06          | 0.07        | 0.1          | 0.23         | 0.43           | 1.8            |
| 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 $\Omega$                 | 50.6 $\Omega$ | 62.5 $\Omega$ | 90 $\Omega$ | 203 $\Omega$ | 360 $\Omega$ | 1,440 $\Omega$ | 5,760 $\Omega$ |
| Coil inductance (H) (ref. value) | Armature OFF                  | 0.035         | 0.1           | 0.12        | 0.17         | 0.42         | 0.7            | 2.8            |
|                                  | Armature ON                   | 0.02          | 0.07          | 0.09        | 0.13         | 0.3          | 0.52           | 2.2            |
| 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                |               |               |             |              |              |                |                |

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## 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<br>(H) (ref. value) | Armature OFF | 0.15                          | 0.34         | 0.44         | 0.64         | 1.38         | 2.5            | 9.2            | 28.5            |
|                                     | Armature ON  | 0.11                          | 0.25         | 0.35         | 0.48         | 1.07         | 2              | 7.2            | 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<br>(H) (ref. value) | Armature OFF | 0.03                          | 0.06          | 0.08          | 0.11           | 0.25         | 0.45         | 1.8            | 7              |
|                                     | Armature ON  | 0.02                          | 0.04          | 0.06          | 0.08           | 0.18         | 0.32         | 1.3            | 5.2            |
| 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<br>(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.<br>200 mW             | Approx. 180 mW |              |              |              |              |                | Approx.<br>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<br>(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                |               |               |                |              |              |                |                |

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## 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<br>(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<br>(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:** 1. The rated current and coil resistance are measured at a coil temperature of 23°C with a tolerance of  $\pm 10\%$ .  
2. 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  |                                            |
|--------------------------------|------------------------------------|--------------------------------------------|------------------------------------|--------------------------------------------|
| Load                           | Resistive load<br>(cosφ = 1)       | Inductive load<br>(cosφ = 0.4; L/R = 7 ms) | Resistive load<br>(cosφ = 1)       | Inductive load<br>(cosφ = 0.4; L/R = 7 ms) |
| Rated load                     | 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         |
| Contact material               | AgPd (Au-clad)                     |                                            | Ag (Au-clad)                       |                                            |
| Rated carry current            | 3 A                                |                                            |                                    |                                            |
| Max. switching voltage         | 250 VAC, 220 VDC                   |                                            |                                    |                                            |
| Max. switching current         | 2 A                                | 1 A                                        | 2 A                                | 1 A                                        |
| Max. switching power           | 125 VA, 60 W                       | 62.5 VA, 30 W                              | 125 VA, 60 W                       | 62.5 VA, 30 W                              |
| Failure rate (reference value) | 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 |                                            |
|--------------------------------|----------------------------------------------------------------------------|--------------------------------------------|----------------------------------------------------------------------------|--------------------------------------------|
| Load                           | Resistive load<br>(cosϕ = 1)                                               | Inductive load<br>(cosϕ = 0.4; L/R = 7 ms) | Resistive load<br>(cosϕ = 1)                                               | Inductive load<br>(cosϕ = 0.4; L/R = 7 ms) |
| Rated load                     | 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        |
| Contact material               | AgPd (Au-clad)                                                             |                                            | Ag (Au-clad)                                                               |                                            |
| Rated carry current            | 3 A                                                                        |                                            | 3 A                                                                        |                                            |
| Max. switching voltage         | 250 VAC, 220 VDC                                                           |                                            | 250 VAC, 220 VDC                                                           |                                            |
| Max. switching current         | 2 A                                                                        | 1 A                                        | 2 A                                                                        | 1 A                                        |
| Max. switching power           | 125 VA, 60 W                                                               | 62.5 VA, 30 W                              | 125 VA, 60 W                                                               | 62.5 VA, 30 W                              |
| Failure rate (reference value) | 0.01 mA at 10 mVDC                                                         |                                            | 0.01 mA at 10 mVDC                                                         |                                            |

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

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## ■ Characteristics

|                             |                                                                                                                                                                                                                                                               |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Contact resistance          | 50 mΩ max.                                                                                                                                                                                                                                                    |
| Operate (set) time          | 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)                    |
| Release (reset) time        | 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)                  |
| Bounce time                 | Operate: mean value: approx. 0.5 ms<br>Release: mean value: approx. 0.5 ms                                                                                                                                                                                    |
| Min. set/reset signal width | DPDT: 7 ms min.<br>4PDT: 15 ms min.                                                                                                                                                                                                                           |
| Max. operating frequency    | Mechanical: 36,000 operations/hr<br>Electrical: 1,800 operations/hr (under rated load)                                                                                                                                                                        |
| Insulation resistance       | 1,000 MΩ min. (at 500 VDC); except for set-reset                                                                                                                                                                                                              |
| Dielectric strength         | 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 |
| Impulse withstand voltage   | 1,500 V (10 x 160 μs) (conforms to FCC Part 68)                                                                                                                                                                                                               |
| Vibration resistance        | 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)                                                                                         |
| Shock resistance            | 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)                                                                                        |
| Endurance                   | Mechanical: 100,000,000 operations min. (at 36,000 operations/hr)<br>Electrical: 500,000 operations min. (at 1,800 operations/hr)                                                                                                                             |
| Ambient temperature         | Operating: -40°C to 70°C (with no icing)                                                                                                                                                                                                                      |
| Ambient humidity            | Operating: 5% to 85%                                                                                                                                                                                                                                          |
| Weight                      | DPDT: Approx. 3.5 g<br>4PDT: Approx. 6 g                                                                                                                                                                                                                      |

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

## ■ Approved Standards

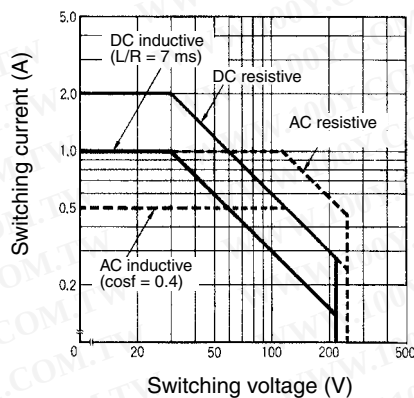
UL114, UL478 (File No. E41515)/CSA C22.2 No.0, No.14 (File No. LR24825)

| 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 |

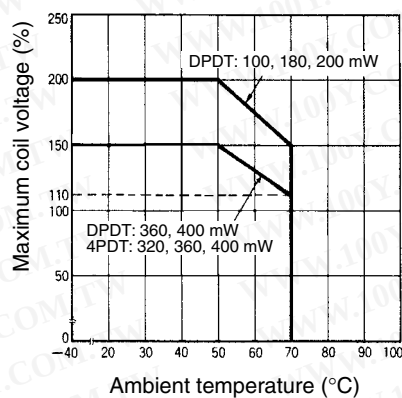
勝特力材料 886-3-5753170  
 勝特力电子(上海) 86-21-54151736  
 勝特力电子(深圳) 86-755-83298787  
[Http://www.100y.com.tw](http://www.100y.com.tw)

# Engineering Data

## Maximum Switching Power DPDT, 4PDT

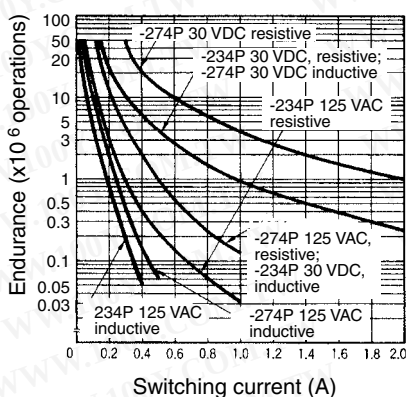


## Ambient Temperature vs. Maximum Coil Voltage

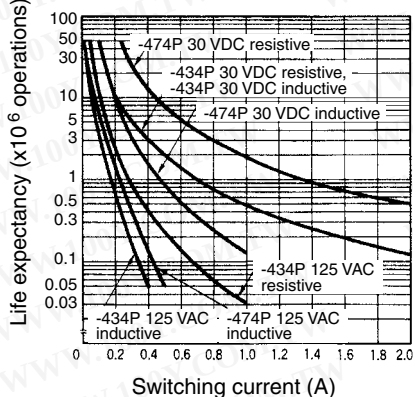


**Note:** The maximum coil voltage refers to the maximum value in a varying range of operating power voltage, not a continuous voltage.

## Endurance DPDT



## 4PDT



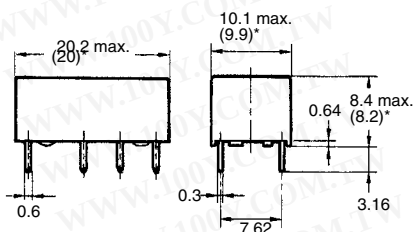
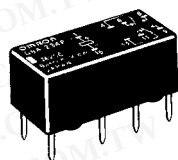
勝特力材料 886-3-5753170  
 勝特力电子(上海) 86-21-54151736  
 勝特力电子(深圳) 86-755-83298787  
[Http://www.100y.com.tw](http://www.100y.com.tw)

## Dimensions

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

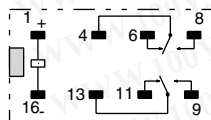
2. Orientation marks are indicated as follows:  

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



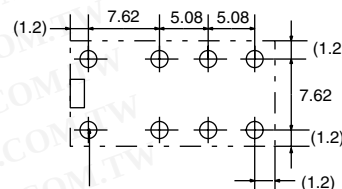
\*Average value

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



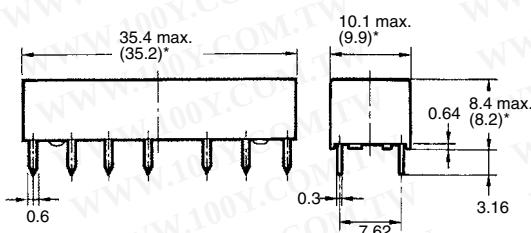
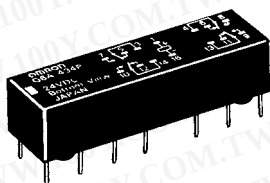
#### Mounting Holes (Bottom View)

Tolerance:  $\pm 0.1$



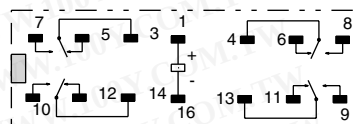
Eight, 1.0-dia. holes

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



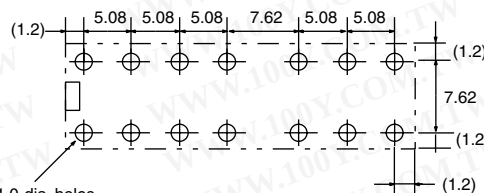
\*Average value

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



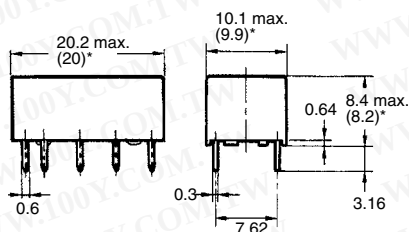
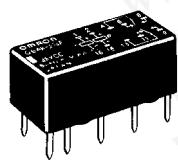
#### Mounting Holes (Bottom View)

Tolerance:  $\pm 0.1$



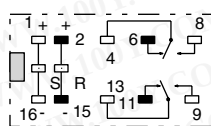
Fourteen, 1.0-dia. holes

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



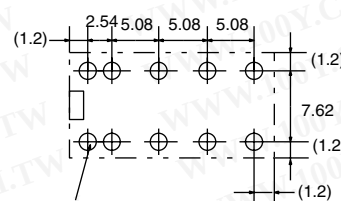
\*Average value

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



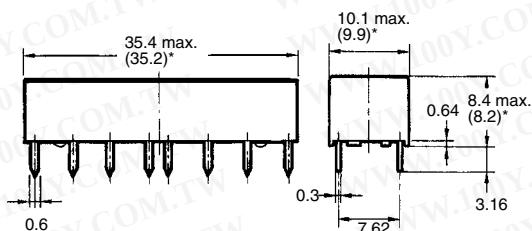
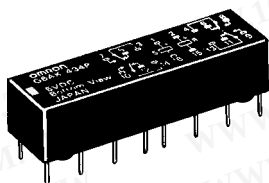
#### Mounting Holes (Bottom View)

Tolerance:  $\pm 0.1$

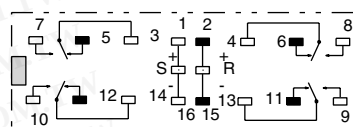


Ten, 1-dia. holes

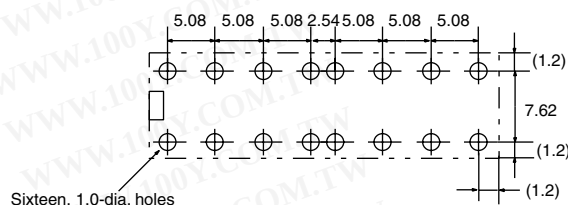
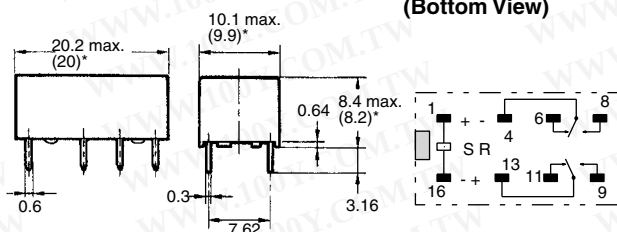
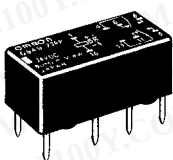
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勝特力电子(上海) 86-21-54151736  
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**G6AK-434P-ST(40)-US,  
G6AK-474P-ST(40)-US**


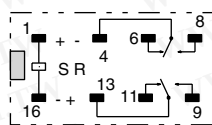
\*Average value

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

**Mounting Holes  
(Bottom View)**

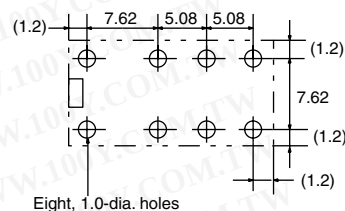
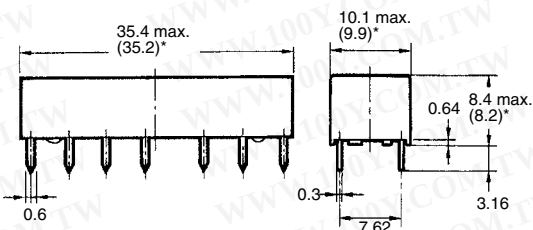
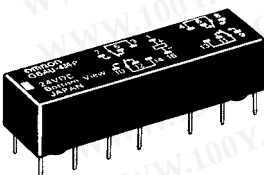
Tolerance:  $\pm 0.1$


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


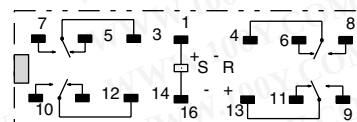
\*Average value

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

**Mounting Holes  
(Bottom View)**

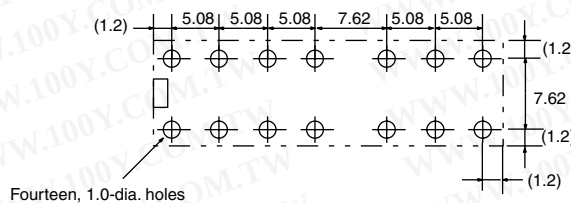
Tolerance:  $\pm 0.1$


**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.