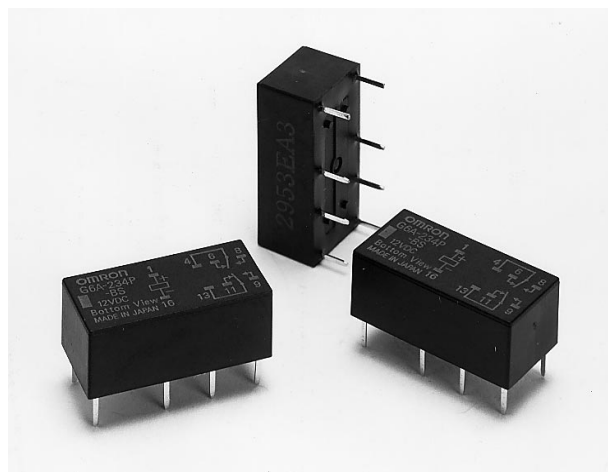


## BABT Approved Relay

## G6A-BS

**BABT Approved Relay Meeting the Requirements of EN41003:1993 as endorsed, formerly BS6301:1989 Amendment 5 for Supplementary Isolation**

- BABT Approved No. CR/0098.
- Height of only 8mm from PCB.
- Wide switching load – 10 $\mu$ A to 2A.
- Fully sealed construction.



BABT

## Ordering Information

### Single-side Stable Type

| Model       | Classification      |                                    |                                 |                            |
|-------------|---------------------|------------------------------------|---------------------------------|----------------------------|
| G6A-234P-BS | Contact Form – DPDT | Contact Type – Bifurcated crossbar | Contact Material – AgPd+Au clad | Structure – Plastic sealed |

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

Example: G6A-234P-BS 12 VDC

Rated coil voltage

## Specifications

### ■ Coil Ratings

#### General purpose, DPDT Relays

|                                  |                                             |       |      |      |      |      |       |                |
|----------------------------------|---------------------------------------------|-------|------|------|------|------|-------|----------------|
| Rated voltage (VDC)              | 3                                           | 4.5   | 5    | 6    | 9    | 12   | 24    | 48             |
| Rated current (mA)               | 93.8                                        | 62.5  | 56.2 | 46.5 | 31.1 | 23.3 | 11.7  | 7.0            |
| Coil resistance ( $\Omega$ )     | 32                                          | 72    | 89   | 129  | 289  | 514  | 2,057 | 6,882          |
| Coil inductance (H) (ref. value) | Armature OFF                                | 0.07  | 0.16 | 0.2  | 0.29 | 0.63 | 1.1   | 13.7           |
|                                  | Armature ON                                 | 0.065 | 0.14 | 0.18 | 0.26 | 0.57 | 1.06  | 12.5           |
| 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, 150% at 70°C |       |      |      |      |      |       |                |
| Power consumption                | Approx. 280 mW                              |       |      |      |      |      |       | Approx. 330 mW |

### ■ Contact Ratings

| Item                    | G6A-234P-BS                        |                                               |
|-------------------------|------------------------------------|-----------------------------------------------|
| Load                    | Resistive load (cos $\phi$ = 1)    | Inductive load (cos $\phi$ = 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          |
| Contact material        | AgPd (Au-clad)                     |                                               |
| Rated carry current     | 3 A                                |                                               |
| Max. switching voltage  | 250 VAC, 220 VDC                   |                                               |
| Max. switching current  | DC: 2 A; AC: 2 A                   | DC: 1 A; AC: 1 A                              |
| Max. switching capacity | 125 VA, 60 W                       | 62.5 VA, 30 W                                 |
| Min. permissible load   | 0.01 mA at 10 mVDC                 |                                               |

# ■ Characteristics (at Ambient Temperature 23°C)

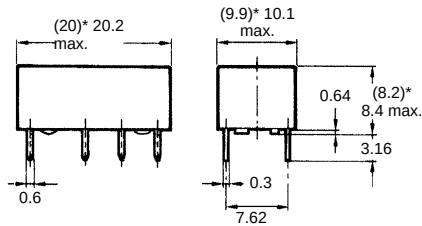
|                              |                                                                                                                                   |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Contact resistance           | 50 mΩ max.                                                                                                                        |
| Operate (set) time           | 5 ms max.                                                                                                                         |
| Release (reset) time         | 3 ms max.                                                                                                                         |
| 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)                                                                                                        |
| Dielectric withstand voltage | 1,000 VAC, 50/60 Hz for 1 min between open contacts<br>2,000 VAC, 50/60 Hz for 1 min between coil and contacts                    |
| Impulse withstand voltage    | 1,500 V 10 x 160 μs (conforms to FCC Part 68)                                                                                     |
| Vibration resistance         | Destruction: 10 to 55 Hz, 5-mm double amplitude<br>Malfunction: 10 to 55 Hz, 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)                       |
| Life expectancy              | 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)<br>Storage: -40°C to 70°C (with no icing)                                                |
| Ambient humidity             | Operating: 45% to 85%                                                                                                             |
| Weight                       | DPDT: Approx. 3.5 g                                                                                                               |

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

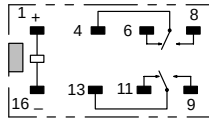
## Dimensions

**Note:** 1. Orientation marks are indicated as follows:  

### G6A-234P-BS



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



### Mounting Holes (Bottom View)

Tolerance: +0.1

