# OMRON BABT Approved Relay

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 10µA to 2A.
- Fully sealed construction.



## **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 <u>12 VDC</u>

Rated coil voltage

## Specifications

### Coil Ratings

#### General purpose, DPDT Relays

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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 (	Ω)	32	72	89	129	289	514	2,057	6,882
Coil inductance	Armature OFF	0.07	0.16	0.2	0.29	0.63	1.1	4.5	13.7
(H) (ref. value)	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	fax. voltage 150% of rated voltage at 23°C, 150% at 70°C								
Power consumption		Approx. 280 mW						Approx. 330 mW	

#### Contact Ratings

ltem	G6A-234P-BS			
Load	Resistive load $(\cos \emptyset = 1)$	Inductive load $(\cos \emptyset = 0.4; L/R = 7 ms)$		
Rated load	0.3 A at 125 VAC; 1 A at 30 VDC	0.2 A at 125 VAC; 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: 2A; 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 m $\Omega$ max.	
Operate (set) time	5 ms max.	
Release (reset) time	3 ms max.	
Max. operating frequency	Mechanical: 36,000 operations/hr 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 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 Malfunction: 10 to 55 Hz, 3.3-mm double amplitude	
Shock resistance	Destruction: 1,000 m/s <sup>2</sup> (approx. 100G) Malfunction: DPDT: 500 m/s <sup>2</sup> (approx. 50G)	
Life expectancy	Mechanical: 100,000,000 operations min. (at 36,000 operations/hr) Electrical: 500,000 operations min. (at 1,800 operations/hr)	
Ambient temperature	Operating: -40°C to 70°C (with no icing) 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)

