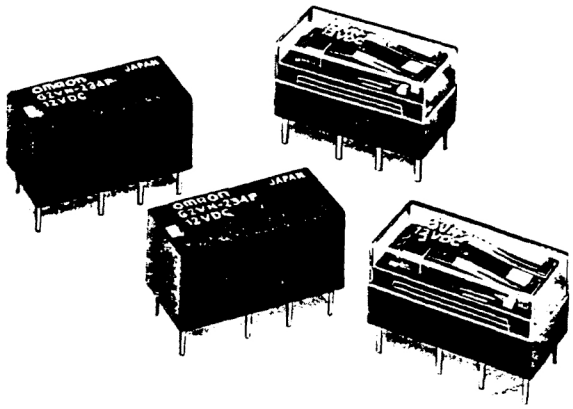
OMRON

PCB Relay

G2V

Miniature Relay Suitable for Sensitive Signal Circuits

- Low power consumption: 150 mW.
- Wide switching capacity of 10 μA to 2 A.
- International 2.54-mm terminal pitch.
- Impulse withstand voltage meets FCC Part 68 requirements.
- Flux-tight and plastic-sealed constructions available.



FCC

Ordering Information

OMRON Standard

UL/CSA Approved Contact

		Plastic-sealed	
DPDT	Bifurcated crossbar	G2VN-234P-US	

Note: When ordering, add the rated coil voltage to the model number.
Example: G2VN-237P 12 VDC
Rated coil voltage

Model Number Legend:

G2VN - □ □ □ □ □ - □ □ **VDC**
1 2 3 4 5 6 7

1. **Contact Form**
   2: DPDT
2. **Contact Type**
   3: Bifurcated crossbar (Au-clad)
   8: Single crossbar (Au-clad)
3. **Enclosure Rating**
   4: Plastic-sealed
   7: Flux-tight
4. **Terminals**
   P: Straight PCB
   C: Curved tail PCB
5. **Power Consumption**
   None: General-purpose (360 mW)
   H: High-sensitivity (150 mW)
6. **Approved Standards**
   None: Not certified (OMRON standard)
   US: UL, CSA, TÜV certified
7. **Rated Coil Voltage**
   3.5, 4.5, 5, 6, 9, 12, 24, 48 VDC

Specifications

■ Coil Ratings

General-purpose Type

Rated voltage		3 VDC	4.5 VDC	5 VDC	6 VDC	9 VDC	12 VDC	24 VDC	48 VDC
Rated current		120 mA	80 mA	106 mA	60 mA	40 mA	30 mA	15 mA	7.5 mA
Coil resistance		25 Ω	56 Ω	46 Ω	100 Ω	225 Ω	400 Ω	1,600 Ω	6,400 Ω
Coil inductance	Armature OFF	0.058	0.14	0.18	0.26	0.61	1.15	5.0	22
(H) (ref. value)	Armature ON	0.068	0.16	0.195	0.28	0.64	1.15	4.5	18
Must operate voltage		75% max. of rated voltage							
Must release voltage		10% min. of rated voltage							
Max. voltage		130% of rated voltage at 23°C, 115% at 70°C							
Power consumption		Approx. 360 mW							

High-sensitivity Type

Rated voltage		3 VDC	4.5 VDC	5 VDC	6 VDC	9 VDC	12 VDC	24 VDC	48 VDC
Rated current		50 mA	33 mA	30 mA	25 mA	16.7 mA	12.5 mA	6.63 mA	3.3 mA
Coil resistance		60 Ω	135 Ω	167 Ω	240 Ω	540 Ω	960 Ω	3,840 Ω	14,400 Ω
Coil inductance	Armature OFF	0.165	0.35	0.44	0.64	1.55	2.95	10.27	53
(H) (ref. value)	Armature ON	0.286	0.64	0.82	1.15	2.6	4.8	19	75
Must operate voltage		75% max. of rated voltage							
Must release voltage		10% min. of rated voltage							
Max. voltage		200% of rated voltage at 23°C, 150% at 70°C							
Power consumption		Approx. 150 mW							

Note: 1. The rated current and coil resistance are measured at a coil temperature of 23°C with a tolerance of ±10%.

2. Operating characteristics are measured at a coil temperature of 23°C.

■ Contact Ratings

Item	Single crossbar		Bifurcated crossbar	
Load	Resistive load ($\cos\phi$ = 1)	Inductive load ($\cos\phi$ = 0.4; L/R = 7 ms)	Resistive load ($\cos\phi$ = 1)	Inductive load ($\cos\phi$ = 0.4; L/R = 7 ms)
Rated load	0.3 A at 110 VAC; 1 A at 24 VDC	0.2 A at 110 VAC; 0.3 A at 24 VDC	0.3 A at 110 VAC; 1 A at 24 VDC	0.2 A at 110 VAC; 0.3 A at 24 VDC
Contact material	AgPd (Au-clad)			
Rated carry current	2 A			
Max. switching voltage	125 VAC, 125 VDC			
Max. switching current	2 A			
Max. switching capacity	60 VA, 30 W	22 VA, 10 W	60 VA, 30 W	22 VA, 10 W
Min. permissible load	1 mA at 1 VDC (10 μA at 10 mVDC)		10 μA at 100 mVDC (10 μA at 10 mVDC)	

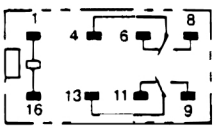
Note: P level: $\lambda_{60} = 0.1 \times 10^{-6}$/operation

Dimensions

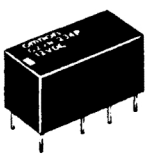
Note: 1. All units are in millimeters unless otherwise indicated.

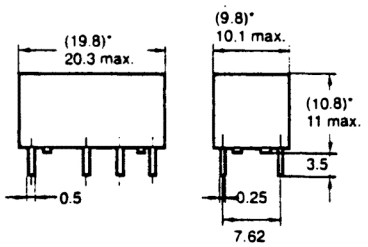
2. Orientation marks are indicated as follows: ——

Terminal Arrangement/
Internal Connections
(Bottom View)



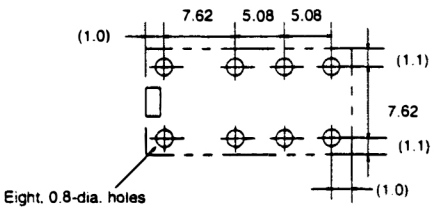
Plastic-sealed





*Average value

Mounting Holes
(Bottom View)
Tolerance: ±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.