

V23111 series



Miniature, Sealed PC Board Relay

File E82292

File LR48471

Features

- Designed for thermostats, modems, computer peripherals, video recording, security applications, and telecom terminals and accessories.
- 1 Form C contact arrangement.
- Low coil power requirement for IC compatibility.
- Terminals arranged on grid pattern.
- Designed for compact, high density mounting.

Contact Data @ 25°C

Arrangements: 1 Form C (SPDT), single contact.

Material: Gold Overlay Silver Nickel Alloy.

Max. Switching Rate: 10 ops./sec. (no load).

Expected Mechanical Life: 50 million operations (no load).

Expected Electrical Life: 100,000 operations (rated load).

Initial Contact Resistance: 50 milliohms @ 100mA, 6VDC.

Contact Ratings

Ratings: 1A @ 120VAC/24VDC resistive,

Max. Switched Voltage: 120VAC/30VDC.

Max. Switched Current: 1A.

Max. Switched Power: 120VA, 24W.

Initial Dielectric Strength

Between Open Contacts: 400VAC, 50/60 Hz. (1 minute).

Between Contacts and Coil: 1,500VAC, 50/60 Hz. (1 minute).

Surge Voltage Between Coil and Contacts: 1,500V FCC Part 68 (10/160 μs).

Initial Insulation Resistance

Between Mutually Insulated Conductors: >100M ohm @ 500VDC.

Coil Data

Voltage: 3 to 24VDC.

Duty Cycle: Continuous.

Nominal Power: 150mW.

Max. Coil Power: 140% of nominal at 70°C.

Max. Coil Temperature: 115°C.

Thermal Resistance: 140K/W.

Coil Data @ 20°C

V23111-A10... Sensitive						
Rated Coil Voltage (VDC)	Nominal Current (mA)	Coil Resistance ± 10% (ohms)	Must Operate Voltage (VDC)	Must Release Voltage (VDC)	Max. Voltage @ 20°C (VDC)	Max. Voltage @ 85°C (VDC)
3	50.0	60	2.25	0.15	6.61	3.17
5	30.0	166	3.75	0.25	10.98	5.26
6	25.0	240	4.50	0.30	13.22	6.33
9	16.7	540	6.75	0.45	19.83	9.50
12	12.5	960	9.00	0.60	26.44	12.68
24	6.3	3,840	18.00	1.20	52.89	25.37

Operate Data @ 20°C

Must Operate Voltage: 75% of nominal voltage or less.

Must Release Voltage: 5% of nominal voltage or more.

Operate Time: 5 ms max.

Release Time: 5 ms max.

Environmental Data

Temperature Range:

Operating: -40°C to +85°C.

Vibration, Mechanical: 10 to 55 Hz., 1.5mm double amplitude.

Operational: 10 to 55 Hz., 1.5mm double amplitude.

Shock, Mechanical: 500m/s² (50G approximately).

Operational: 100m/s² (10G approximately).

Mechanical Data

Termination: Printed circuit terminals.

Enclosure: Plastic sealed case, immersion cleanable ((IP67).

Weight: 3g approximately.

Ordering Information

Typical Part Number ▶ **V23111 -A10 05 -B301**

1. Basic Series:

V23111 = Miniature relay

2. Termination:

A10 = Sensitive (150mW)

3. Coil Voltage:

03 = 3VDC 06 = 6VDC 12 = 12VDC
05 = 5VDC 09 = 9VDC 24 = 24VDC

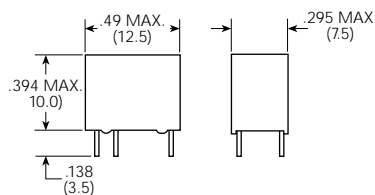
4. Contact Material:

B301 = Gold Overlay Silver Nickel Alloy

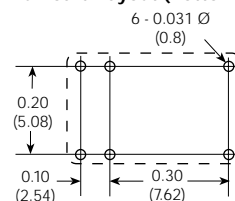
Stock Items – The following items are normally stocked.

V23111A1005B301 V23111A1012B301
V23111A1009B301 V23111A1024B301

Outline Dimensions



PC Board Layout (Bottom View)



Wiring Diagram (Bottom View)

