

9000 SERIES/MOLDED SIP REED RELAYS



9000 Series High Performance SIP Reed Relays

The SIP relay is the industry standard when high reliability and consistent performance are desired in a compact package. The 9001 and 9002 are high performance relays ideally suited for Automatic Test Equipment, Instrumentation, RF and Telecommunications applications. The specification tables allow you to select the appropriate relay for your application.

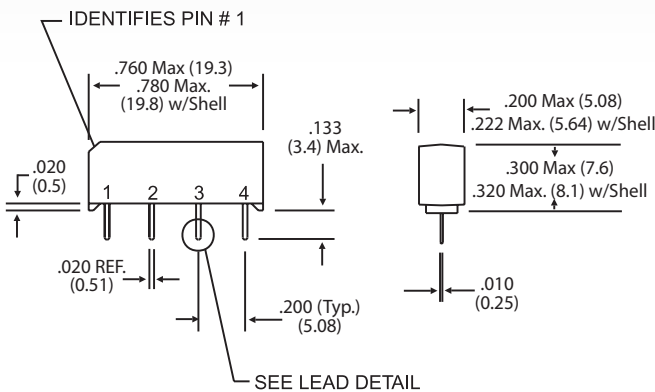
9000 Series Features

- ▶ High Insulation Resistance - $10^{12}\Omega$ minimum ($10^{13}\Omega$ typical)
- ▶ High reliability, hermetically sealed contacts for long life (tested up to 1 Billion Operations)
- ▶ High dielectric strength available, consult factory
- ▶ High speed switching compared to electromechanical relays
- ▶ Molded thermoset body on integral lead frame design
- ▶ Coaxial Shield for 50 Ω impedance and switching of fast rise time digital pulses - 9002 only
- ▶ Optional Coil Suppression Diode - protects coil drive circuits
- ▶ UL File #E67117, CSA File #028537 - Contact factory for details
- ▶ RoHS compliant

DIMENSIONS

in Inches (Millimeters)

Model 9001



Model 9002



Alternate Package



Ordering Information

| Part Number | 90XX-XX-XX | General Options |
|--------------|---------------------------|---|
| Model Number | 9001 9002 | 0 = No Diode 1 = Diode ² |
| Coil Voltage | 05=5 volts 12=12 volts | Magnetic Shield Option 0 = No Shield 1 = Shield |

NOTE

- ▶ For RF Graph Performance, see "RF Graphs" section of the *Reed Relay Technical & Application Information*

| MODELNUMBER | | | 9001 ² | 9002 ² |
|---|--|------------------------|-------------------|-------------------|
| Parameters | Test Conditions | Units | 4 Pin SIP | 6 Pin SIP |
| COIL SPECS. | | | | |
| Nom. Coil Voltage | | VDC | 5 12 | 5 12 |
| Max. Coil Voltage | | VDC | 6.5 15.0 | 6.5 15.0 |
| Coil Resistance | +/- 10%, 25° C | Ω | 500 1000 | 350 750 |
| Operate Voltage | Must Operate by | VDC - Max. | 3.75 9.0 | 3.75 9.0 |
| Release Voltage | Must Release by | VDC - Min. | 0.4 1.0 | 0.4 1.0 |
| CONTACT RATINGS | | | | |
| Switching Voltage | Max DC/Peak AC Resist. | Volts | 200 | 200 |
| Switching Current | Max DC/Peak AC Resist. | Amps | 0.5 | 0.5 |
| Carry Current | Max DC/Peak AC Resist. | Amps | 1.5 | 1.5 |
| Contact Rating | Max DC/Peak AC Resist. | Watts | 10 | 10 |
| Life Expectancy-Typical ¹ | Signal Level 1.0V, 10mA | x 10 ⁶ Ops. | 1000 | 1000 |
| Static Contact Resistance (max. init.) | 50mV, 10mA | Ω | 0.150 | 0.150 |
| Dynamic Contact Resistance (max. init.) | 0.5V, 50mA at 100 Hz, 1.5 msec | Ω | 0.200 | 0.200 |
| RELAY SPECIFICATIONS | | | | |
| Insulation Resistance (minimum) | Between all Isolated Pins at 100V, 25°C, 40% RH | Ω | 10 ¹² | 10 ¹² |
| Capacitance - Typical Across Open Contacts | No Shield | pF | 0.7 | - |
| | Shield Floating | pF | - | 0.8 |
| | Shield Guarding | pF | - | 0.1 |
| Open Contact to Coil | No Shield | pF | 1.4 | - |
| | Shield Floating | pF | - | 1.4 |
| | Shield Guarding | pF | - | 0.5 |
| Contact to Shield | Contacts Open, Shield Floating | pF | - | 1.4 |
| Dielectric Strength (minimum) | Between Contacts | VDC/peak AC | 300 | 300 |
| | Contacts to Coil | VDC/peak AC | - | 1500 |
| | Contacts/Shield to Coil | VDC/peak AC | 1500 | 1500 |
| Operate Time - including bounce - Typical | At Nominal Coil Voltage, 30 Hz Square Wave | msec. | 0.35 | 0.35 |
| Release Time - Typical | | msec. | 0.1 | 0.1 |

Top View:
Dot stamped on relay refers to pin #1
Grid = .1"x.1" (2.54mm x 2.54mm)



Notes:

¹ Consult factory for life expectancy at other switching loads. Resistance >0.5Ω defines end of life or failure to open.

² Optional diode is connected to pin #2(+) and pin #3(-). Correct coil polarity must be observed.

Environmental Ratings:

Storage Temp: -35°C to +100°C; Operating Temp: -20°C to +85°C; Solder Temp: 270°C max; 10 sec. max

All electrical parameters measured at 25°C unless otherwise specified.

Vibration: 20 G's to 2000 Hz; Shock: 50 G's

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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