

9800 Series/Surface Mount Reed Relays



SURFACE MOUNT REED RELAYS

Ideally suited to the needs of Automated Test Equipment, Instrumentation and Telecommunications requirements, Coto's 9800 Series is an ultra-miniature Surface Mount Reed Relay that combines small size with exceptional RF performance. The 9814 extends life at ATE loads 3X or more utilizing Coto's proprietary switch technology. The external Magnetic Shield reduces interaction between parts in high density boards. The 9852 adds a form C capability. Small size plus added features allow for high density packing, and make these relays ideal for designs such as high speed, high pin count VLSI testers where speed, size and performance are all needed.

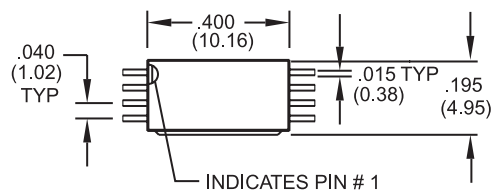
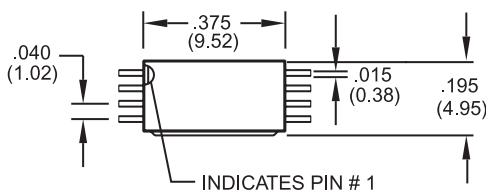
SERIES FEATURES

- ◆ Available in Axial, Gull wing and "J" lead configurations
- ◆ Tape and Reel packaging available
- ◆ High reliability, hermetically sealed contacts for long life
- ◆ High Insulation Resistance - $10^{12} \Omega$ minimum (Form A)
- ◆ Coaxial shield for 50 Ω impedance
- ◆ 6.5 GHz bandwidth for RF and Pulse switching (fast rise time pulses)
- ◆ External Magnetic Shield

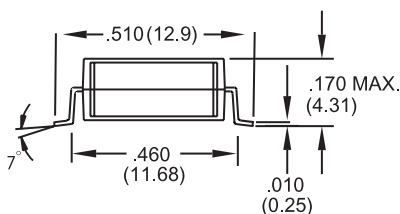
Model 9802

Models 9814 & 9852

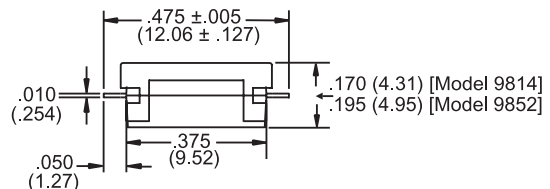
Dimensions in Inches (Millimeters)



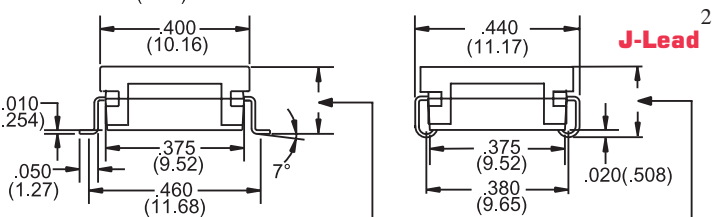
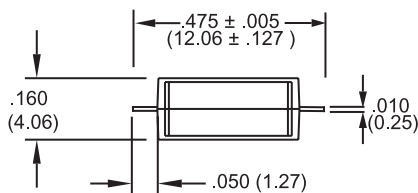
Gull Wing²



Axial²

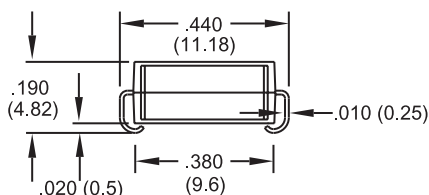


Axial²



Gull Wing²

J-Lead²



Ordering Information

| Part Number | 9XXX-XX-XX | Lead Style |
|--------------|---------------------------------------|---------------------------|
| Model Number | 9802 9814 9852 | 00 = Gull Wing |
| Coil Voltage | 03 = 3.3 volts (9814) 05 = 5 volts | 10 = Axial 20 = J-Lead |

9800 Series/Surface Mount Reed Relays

| Model Number | | | 9802 | 9814 | 9852 ⁴ |
|--|--|------------------------|--------------------------|--------------------------|--------------------------|
| Parameters | Test Conditions | Units | 1 Form A 50 Ω Coaxial | 1 Form A 50 Ω Coaxial | 1 Form C 50 Ω Coaxial |
| COIL SPECIFICATIONS | | | | | |
| Nom. Coil Voltage | | VDC | 5 | 3.3 5 | 5 |
| Max. Coil Voltage | | VDC | 6 | 4 6 | 6 |
| Coil Resistance | +/- 10%, 25° C | Ω | 150 | 70 150 | 110 |
| Operate Voltage | Must Operate by | VDC - Max. | 3.8 | 2.5 3.8 | 3.8 |
| Release Voltage | Must Release by | VDC - Min. | 0.4 | 0.4 0.4 | 0.4 |
| CONTACT RATINGS | | | | | |
| Switching Voltage | Max DC/Peak AC Resist. | Volts | 100 | 100 | 30 |
| Switching Current | Max DC/Peak AC Resist. | Amps | 0.25 | 0.25 | 0.1 |
| Carry Current | Max DC/Peak AC Resist. | Amps | 0.5 | 0.5 | 0.2 |
| Contact Rating | Max DC/Peak AC Resist. | Watts | 3 | 3 | 3 |
| Life Expectancy-Typical ¹ | Signal Level 1.0V,10mA | x 10 ⁶ Ops. | 250 | 1000 | 100N/C |
| Static Contact Resistance (max. init.) | 50mV, 10mA | Ω | 0.125 | 0.125 | 0.150 |
| Dynamic Contact Resistance (max. init.) | 0.5V, 50mA at 100 Hz, 1.5 msec | Ω | 0.150 | 0.150 | 0.150 |
| RELAY SPECIFICATIONS | | | | | |
| Insulation Resistance (minimum) | Between all Isolated Pins at 100V, 25°C, 40% RH | Ω | x 10 ¹² | 10 ¹² | 10 ⁹ |
| Capacitance - Typical Across Open Contacts | No Shield | pF | - | - | - |
| | Shield Floating | pF | - | - | - |
| | Shield Guarding | pF | 0.2 | 0.2 | 1.0 |
| Open Contact to Coil | No Shield | pF | - | - | - |
| | Shield Floating | pF | - | - | - |
| | Shield Guarding | pF | 0.5 | 0.5 | 1.0 |
| Closed Contact to Coil | Shield Guarding | pF | 0.5 | 0.5 | 0.5 |
| Contact to Shield | Contacts Open, Shield Floating | pF | - | - | - |
| Dielectric Strength (minimum) | Between Contacts | VDC/peak AC | 200 | 200 | 200 |
| | Contacts to Shield | VDC/peak AC | 1500 | 1500 | 1000 |
| | Contacts/Shield to Coil | VDC/peak AC | 1500 | 1500 | 1000 |
| Operate Time - including bounce - Typical / Max | At Nominal Coil Voltage, 30 Hz Square Wave | msec. | 0.25 | 0.25 | 1.0 |
| Release Time - Typical / Min | Zener-Diode Suppression ³ | msec. | 0.05 | 0.05 | 1.0 |

Top View: Dot stamped on top of relay refers to pin #1 location

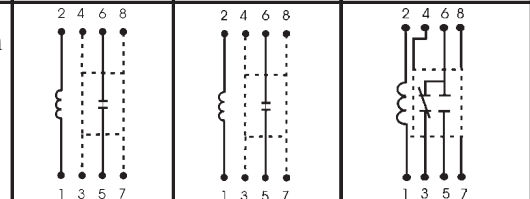
Notes:

¹ Consult factory for life expectancy at other switching loads. Contact resistance 2.0Ω defines end of life.

² Surface mount component processing temperature: 500°F / 260°C max for 1 minute dwell time. Temperature measured on leads where lead exits molded package.

³ Consists of 56V Zener diode and 1N4148 diode in series, connected in parallel with coil.

⁴ Custom Coil Designs are available. Contact Coto.



Environmental Ratings

Storage Temp: -35°C to +100°C; Operating Temp: -20°C to +85°C
The operate and release voltage and the coil resistance are specified at 25°C. These values vary by approximately 0.4%/°C as the ambient temperature varies.
Vibration: 20 G's to 2000 Hz; Shock: 50 G's



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Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)

Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.