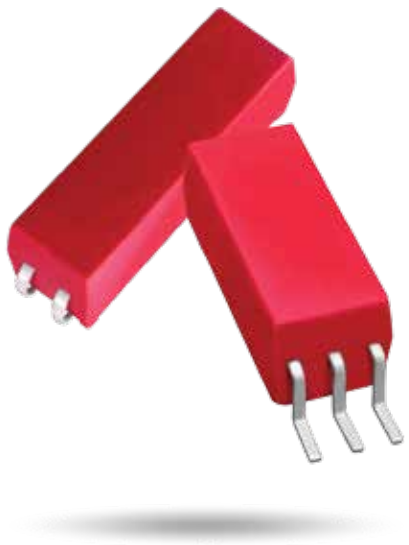
9300-9400 SERIES/SURFACE MOUNT REED RELAYS



9300-9400 Series Surface Mount Reed Relays

Ideally suited to the needs of Automated Test Equipment, Instrumen-tation and Telecommunications requirements, Coto's 9300 and 9400 Series specification tables allow you to select the appropriate relay for your particular application. If your requirements differ, please consult your local representative or Coto's Factory to discuss a custom design.

9300-9400 Series Features

- High Insulation Resistance - $10^{12}\Omega$ minimum ($10^{13}\Omega$ Typical)
- High reliability, hermetically sealed contacts for long life
- Molded thermoset body on integral lead frame design
- High speed switching compared to electromechanical relays
- Tape & Reel available
- UL File #E67117 - Contact factory for details
- RoHS compliant

9300 Series

- Load switching (15 Watts) and high dielectric strength (500 VDC) between contacts
- Proven Reliable to switch telephone loads (48V, 100mA)

9400 Series

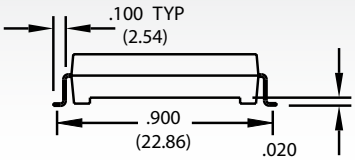
- Small surface mount package (0.225" x 0.550")
- Low capacitance (Contact to Shield - 1.1 pF typical)
- Coaxial shield for 50 Ω impedance. Excellent for RF and Fast Rise Time Pulse switching (up to 2.0 GHz)

DIMENSIONS

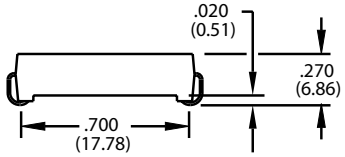
in Inches (Millimeters)

Model 9300

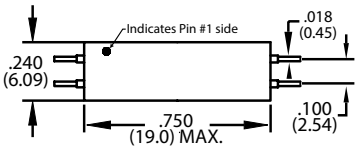
Gull Wing[2]



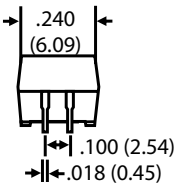
J-Lead[2]



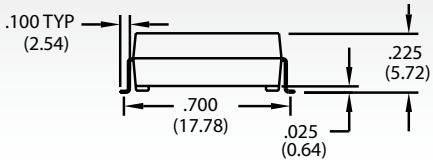
Top View



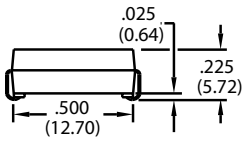
9301 End View



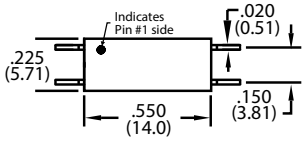
Model 9400



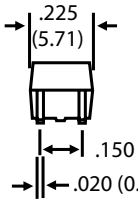
Gull Wing[2]



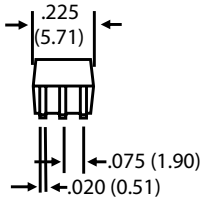
J-Lead[2]



Top View



9401 End View
(J Lead Shown)



9402 End View
(J Lead Shown)

Ordering Information

Part Number **9XXX-XX-XX**

Model Number
9301 9401 9402

Lead Style
00=Gull Wing
20=J-Lead

Coil Voltage
05=5 volts
12=12 volts

NOTE

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

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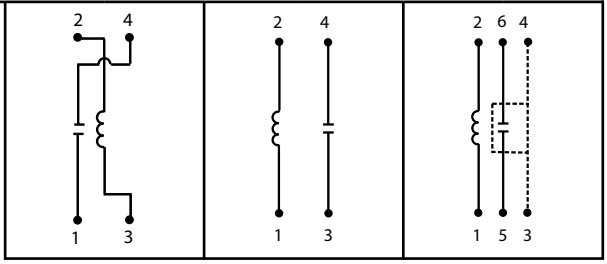
MODEL NUMBER			9301	9401	9402
Parameters	**Test Conditions**	**Units**	**1 Form A**	**1 Form A**	**1 Form A 50 Ω Coaxial**
COIL SPECS.					
Nom. Coil Voltage		VDC	5 12	5 12	5 12
Max. Coil Voltage		VDC	6.5 15.0	6.2 15.0	6.2 15.0
Coil Resistance	+/- 10%, 25° C	Ω	350 1000	200 825	200 825
Operate Voltage	Must Operate by	VDC - Max.	3.75 9.0	3.75 9.0	3.75 9.0
Release Voltage	Must Release by	VDC - Min.	0.4 1.0	0.4 1.0	0.4 1.0
CONTACT RATINGS					
Switching Voltage	Max DC/Peak AC Resist.	Volts	200	200	200
Switching Current	Max DC/Peak AC Resist.	Amps	0.5	0.5	0.5
Carry Current	Max DC/Peak AC Resist.	Amps	1.5	1	1
Contact Rating	Max DC/Peak AC Resist.	Watts	15	10	10
Life Expectancy-Typical[1]	Signal Level 1.0V, 10mA	x 10^6 Ops.	250	250	250
Static Contact Resistance (max. init.)	50mV, 10mA	Ω	0.150	0.125	0.125
Dynamic Contact Resistance (max. init.)	0.5V, 50mA at 100 Hz, 1.5 msec	Ω	0.200	0.150	0.150
RELAY SPECIFICATIONS					
Insulation Resistance (minimum)	Between all Isolated Pins at 100V, 25°C, 40% RH	Ω	10^{12}	10^{12}	10^{12}
Capacitance - Typical Across Open Contacts	No Shield Shield Floating Shield Guarding	pF pF pF	0.7 - -	0.2 - -	- 0.4 0.1
Open Contact to Coil	No Shield Shield Floating Shield Guarding	pF pF pF	1.4 - -	1.1 - -	- 1.1 0.1
Contact to Shield	Contacts Open, Shield Floating	pF	-	-	1.1
Dielectric Strength (minimum)	Between Contacts Contacts to Shield Contacts/Shield to Coil	VDC/peak AC VDC/peak AC VDC/peak AC	500[3] - 1500	300 - 1500	300 1500 1500
Operate Time - including bounce - Typical	At Nominal Coil Voltage, 30 Hz Square Wave	msec.	0.40	0.40	0.40
Release Time - Typical		msec.	0.10	0.20	0.20

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



Notes:

[1] Consult factory for life expectancy at other switching loads.

[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] Higher dielectric strength available, consult factory.

Environmental Ratings:

Storage Temp: -35°C to +100°C; *Operating Temp:* -20°C to +85°C
All electrical parameters measured at 25°C unless otherwise specified.
Vibration: 20 G's to 2000 Hz; *Shock:* 50 G's

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