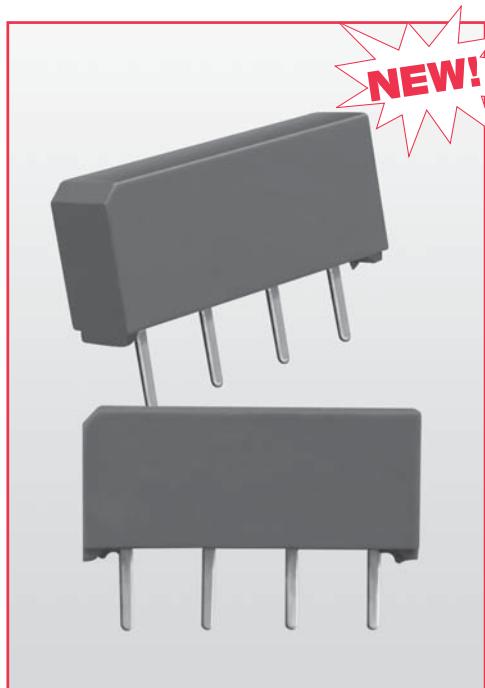


# 9094 High Power Miniature SIP Relay



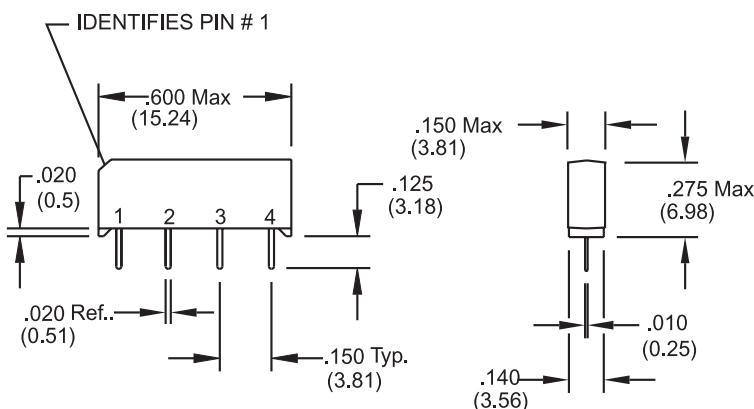
## High Power Miniature Molded SIP Relays

The 9094 Series is the high power 20W version of Coto Technology's industry standard 9091 MiniSIP relay. The robust contacts and small size of the 9094 series make it ideal for ATE and other high-reliability test and measurement applications where high board density and long life are key requirements.

### Series Features

- ◆ 9094 is a 20W SIP relay measuring .600" x .150" x .275"
- ◆ 40% less board space (LxW) than the 9001 series
- ◆ Optional coil suppression diode protects coil drive circuits
- ◆ UL File # E67117
- ◆ High insulation resistance,  $10^{12} \Omega$  minimum
- ◆ Molded thermoset body on integral lead frame design
- ◆ High reliability, hermetically sealed contacts for long life

### Model 9094



Dimensions in Inches (Millimeters)

### Ordering Information

Part Number 9094-XX-0X

Coil Voltage

05=5 volts

12=12 volts

General Options<sup>2</sup>

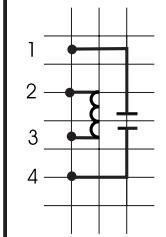
0=No Diode

1=Diode

# 9094 High Power Miniature SIP Relay

Model Number		9094 <sup>2</sup> (20 Watt)	
Parameters	Test Conditions	Units	1 Form A SIP
<b>COIL SPECS.</b>			
Nom. Coil Voltage		VDC	5 12
Max. Coil Voltage		VDC	6.5 15.0
Coil Resistance	+/- 10%, 25° C	Ω	125 500
Operate Voltage	Must Operate by	VDC - Max.	3.75 9.0
Release Voltage	Must Release by	VDC - Min.	0.4 1.0
<b>CONTACT RATINGS</b>			
Switching Voltage	Max DC/Peak AC Resist.	Volts	200
Switching Current	Max DC/Peak AC Resist.	Amps	0.5
Carry Current	Max DC/Peak AC Resist.	Amps	1.5
Contact Rating	Max DC/Peak AC Resist.	Watts	20
Life Expectancy-Typical <sup>1</sup>	Signal Level 1.0V, 10mA	x 10 <sup>6</sup> Ops.	500
Static Contact Resistance (max. init.)	50mV, 10mA	Ω	0.125
Dynamic Contact Resistance (max. init.)	0.5V, 50mA at 100 Hz, 1.5 msec	Ω	0.150
<b>RELAY SPECIFICATIONS</b>			
Insulation Resistance (minimum)	Between all Isolated Pins at 100V, 25°C, 40% RH	Ω	10 <sup>12</sup>
Capacitance - Typical Across Open Contacts		pF	0.1
Open Contact to Coil		pF	2.0
Dielectric Strength (minimum)	Between Contacts	VDC/peak AC	200
	Contacts to Coil	VDC/peak AC	1500
Operate Time - including bounce - Typical	At Nominal Coil Voltage, 30 Hz Square Wave	msec.	0.5
Release Time - Typical	Zener-Diode Suppression <sup>3</sup>	msec.	0.30

Top View:  
Grid = .1"x.1" (2.54mm x 2.54mm)



## Notes:

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

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

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

## Environmental Ratings:

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

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