9104 SERIES/HIGH VOLTAGE SIP REED RELAYS

9104 Series Hi Voltage SIP Reed Relays

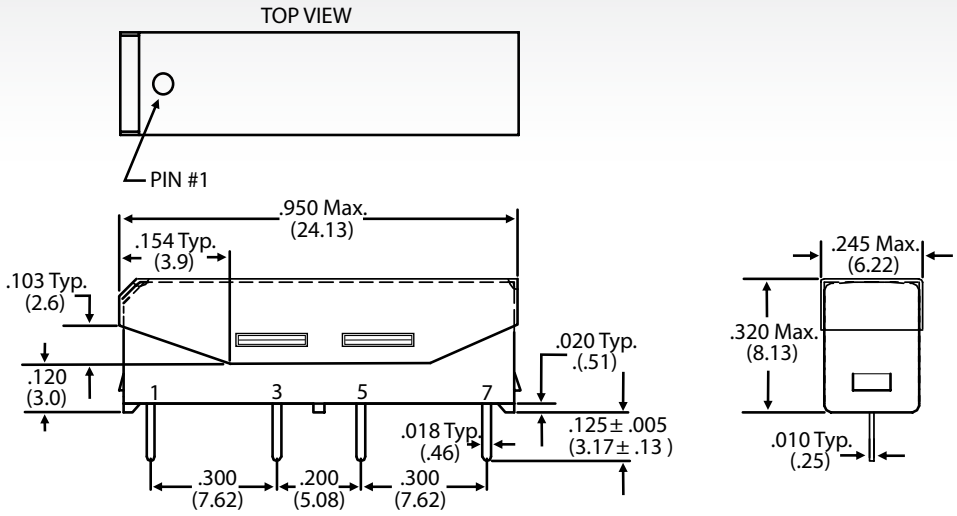
Molded SIP relays are the industry standard when high reliability and consistent performance are desired in a compact package. The 9104 Series adds high voltage switching capability and high voltage standoff capability to a SIP relay package. These high voltage, high performance relays are ideally suited for Automatic Test Equipment, Instrumentation, and Process Control applications where voltage isolation is a key design requirement.

9104 Series Features

- High voltage switching up to 1000 V
- High dielectric strength (2000 V DC)
- High Insulation Resistance – $10^{11}\Omega$ minimum
- High reliability, hermetically sealed contacts for long life
- High speed switching compared to electromechanical relays
- Molded thermoset body on integral lead frame design
- Optional Coil Suppression Diode – protects coil drive circuits
- Magnetic Shield – reduces interaction
- UL File #E67117 - Contact factory for details
- RoHS compliant

DIMENSIONS

in Inches (Millimeters)



Ordering Information

Part Number **9XXX-XX-1X**

Model Number
9104

Coil Voltage
05=5 volts 12=12 volts

Magnetic Shield
1=External Magnetic Shield

General Options
0=No Diode
1=Diode[2]

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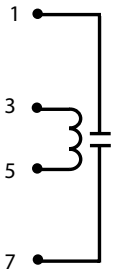
MODEL NUMBER			9104[2]
Parameters	**Test Conditions**	**Units**	**4 Pin SIP**
COIL SPECS.			
Nom. Coil Voltage		VDC	5 12
Max. Coil Voltage		VDC	6.5 15.0
Coil Resistance	+/- 10%, 25° C	Ω	175 500
Operate Voltage	Must Operate by	VDC - Max.	3.75 9.0
Release Voltage	Must Release by	VDC - Min.	0.5 1.0
CONTACT RATINGS			
Switching Voltage[3]	Max DC/Peak AC Resist.	Volts	1000
Switching Current	Max DC/Peak AC Resist.	Amps	0.5
Carry Current	Max DC/Peak AC Resist.	Amps	1.3
Contact Rating	Max DC/Peak AC Resist.	Watts	10
Life Expectancy-Typical[1]	Signal Level 1.0V, 10mA	x 10^6 Ops.	300
Static Contact Resistance (max. init.)	50mV, 10mA	Ω	0.150
Dynamic Contact Resistance (max. init.)	0.5V, 50mA at 100 Hz, 1.5 msec	Ω	0.200
RELAY SPECIFICATIONS			
Insulation Resistance (minimum)	Between all Isolated Pins at 100V, 25°C, 40% RH	Ω	10^{11}
Capacitance - Typical Across Open Contacts	No Shield	pF	1.0
Open Contact to Coil	No Shield	pF	-
Dielectric Strength (minimum)	Between Contacts Contacts to Coil Contacts/Shield to Coil	VDC/peak AC VDC/peak AC VDC/peak AC	2000 3000 3000
Operate Time - including bounce - Typical	At Nominal Coil Voltage, 30 Hz Square Wave	msec.	0.75
Release Time - Typical		msec.	0.5

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



Notes:

[1] Consult factory for life expectancy at other switching loads.
[2] Optional diode is connected to pin #3(+) and pin #5(-). Correct coil polarity must be observed.
[3] Switch current limited to 1.0mA @ 1000V.

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

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