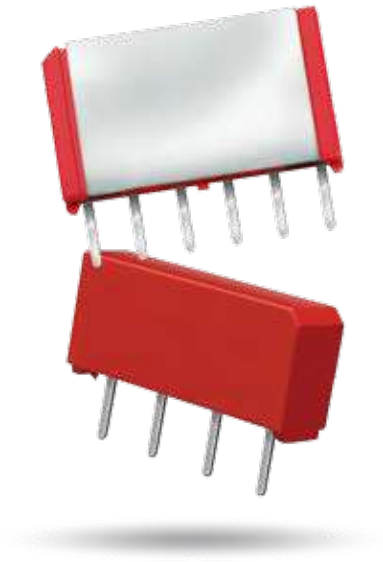
9091 & 9092 MINIATURE SIP RELAYS



9091 & 9092 Series Miniature Molded SIP Reed Relays

The 9091 is a compact version of the 9001 using 40% less board space (LxW). Because of its increased height, the 9092 model allows for incorporation of 2 Form A switches in the same board space. These miniature SIP relays utilize 10W switch technology, making these SIP relays ideal for use in ATE applications and other high reliability test, measurement and telecommunications applications where high board density and long life are key requirements.

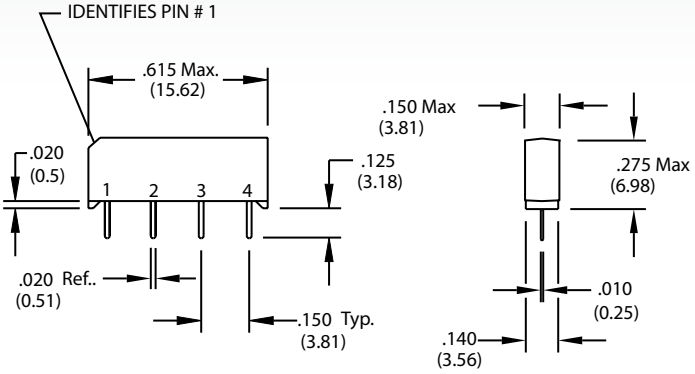
9091 & 9092 Series Features

- 9091 is a 10W SIP relay measuring .615" x .150" x .275"
- 9092 is a 10W SIP relay measuring .600" x .150" x .350"
- Magnetic shield – reduces interaction
- Optional coil suppression diode protects coil drive circuits
- UL File #E67117 - Contact factory for details
- High insulation resistance, $10^{12}\Omega$ minimum
- High speed switching
- Molded thermoset body on integral lead frame design
- High reliability, hermetically sealed contacts for long life
- RoHS compliant

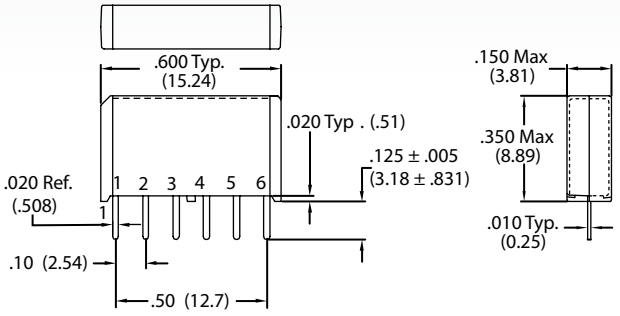
DIMENSIONS

in Inches (Millimeters)

Model 9091



Model 9092



Ordering Information

Part Number **90XX-XX-XX**

Model Number
9091 9092

Coil Voltage
05=5 volts
12=12 volts

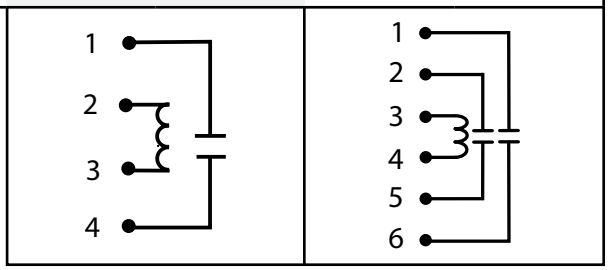
Magnetic Shield
(9091 only)
0=No Shield
1=Mag Shield (9091 Internal, 9092 External)

General Options
0 = No Diode
1 = Diode

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MODEL NUMBER			9091[2,3]	9092[2,3]
Parameters	**Test Conditions**	**Units**	**(10 Watt) 1 Form A SIP**	**(10 Watt) 2 Form A 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	375 750
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.	500	500
Static Contact Resistance (max. init.)	50mV, 10mA	Ω	0.125	0.150
Dynamic Contact Resistance (max. init.)	0.5V, 50mA at 100 Hz, 1.5 msec	Ω	0.150	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		pF	0.7	1.0
Open Contact to Coil		pF	2.0	1.4
Dielectric Strength (minimum)	Between Contacts Contacts to Coil	VDC/peak AC VDC/peak AC	200 1500	200 1500
Operate Time - including bounce - Typical	At Nominal Coil Voltage, 30 Hz Square Wave	msec.	0.5	0.75
Release Time - Typical		msec.	0.30	0.5

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. End of life is defined as Resistance >0.5Ω, or failure to open.
[2] Optional diode is connected to pin #2(+) and pin #3(-) for 9091; pin #3(+) and pin #4(-) for 9092. Correct coil polarity must be observed.
[3] 9091 internal mag shield. 9092 external mag shield.

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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