

# 9270 SERIES -40°C TO 125°C SURFACE MOUNT REED RELAYS



## 9270 Series Surface Mount Reed Relays for -40°C to 125°C Operation

Based on the popular 9290 SMD Relay, the 9270 Series offers stable operation from -40°C up to 125°C. The 9270 is ideally suited for high temperature applications in the Automated Test Equipment, Instrumentation and Telecom markets where wide range temperal testing is required.

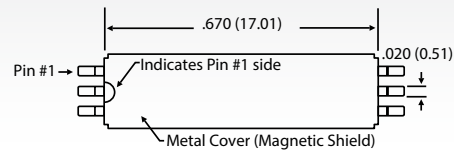
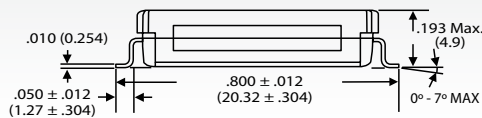
### 9270 Series Features

- ▶ Stable operation from -40 to 125°C
- ▶ High Insulation Resistance -  $10^{12}\Omega$  minimum ( $10^{13}\Omega$  typical)
- ▶ High reliability, hermetically sealed contacts for long life
- ▶ Minimum Footprint .140" Sq. (3.5mm Sq.)
- ▶ 50Ω Co-axial Shield for RF and Fast Rise Time Pulse switching
- ▶ External Magnetic Shield
- ▶ Tape & Reel available
- ▶ RoHS compliant

## DIMENSIONS

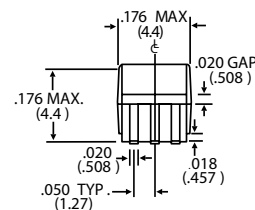
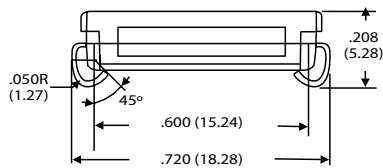
*in Inches (Millimeters)*

### Gull Wing<sup>2</sup>



Top View

### J-Lead<sup>2</sup>



End View

## Ordering Information

9270-XX-XX\*

### Coil Voltage

05=5 volts  
12=12 volts

### Lead Style

00 = Gull Wing  
20 = J-Lead

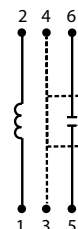
\*Add suffix "TR" for Tape & Reel

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MODEL NUMBER			9270
Parameters	Test Conditions	Units	1 Form A 50 Ω Coaxial
<b>COIL SPECS.</b>			
Nom. Coil Voltage		VDC	5 12
Max. Coil Voltage		VDC	6.5 15.0
Coil Resistance	+/- 10%, 25° C	Ω	100 400
Operate Voltage	Must Operate by	VDC - Max.	2.5 6.7
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	10
Life Expectancy-Typical <sup>1</sup>	Signal Level 1.0V, 10mA	x 10 <sup>6</sup> Ops.	1000
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
<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	No Shield	pF	-
	Shield Floating	pF	1.0
	Shield Guarding	pF	0.2
Open Contact to Coil	No Shield	pF	-
	Shield Floating	pF	2.0
	Shield Guarding	pF	0.4
Contact to Coil	Contacts Open, Shield Floating	pF	2
Dielectric Strength (minimum)	Between Contacts	VDC/peak AC	250
	Contacts to Shield	VDC/peak AC	500
	Contacts/Shield to Coil	VDC/peak AC	500
Operate Time - including bounce - Typical	At Nominal Coil Voltage, 30 Hz Square Wave	msec.	0.40
Release Time - Typical		msec.	0.10

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



#### Notes:

- <sup>1</sup> Consult factory for life expectancy at other switching loads.
- <sup>2</sup> Surface mount component processing temperature: 500°F / 260°C max for 1 minute dwell time. Temperature measured on leads where lead exits molded package.

#### Environmental Ratings:

Storage Temp: -40°C to +125°C; Operating Temp: -40°C to +125°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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