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.

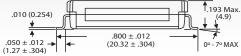
9270 Series Features

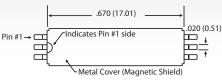
- ► Stable operation from -40 to 125°C
- ► High Insulation Resistance $10^{12}\Omega$ minimum ($10^{13}\Omega$ typical)
- ▶ High reliability, hermetically sealed contacts for long life
- ► Minimum Footprint .140" Sq. (3.5mm Sq.)
- ightharpoonup 50 Ω Co-axial Shield for RF and Fast Rise Time Pulse switching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

DIMENSIONS

in Inches (Millimeters)

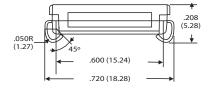


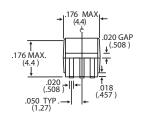




Top View

J-Lead²





End View

Ordering Information 9270-XX-XX*

 Coil Voltage
 Lead Style

 05=5 volts
 00 = Gull Wing

 12=12 volts
 20 = J-Lead

*Add suffix "TR" for Tape & Reel

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MODEL NUMBE	:R		9270	
Parameters	Test Conditions	Units	1 Form A 50 Ω Coaxial	
COIL SPECS.				
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	
CONTACT RATINGS				
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 ¹	Signal Level 1.0V, 10mA	x 10 ⁶ 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	
RELAY SPECIFICATION	ONS			
Insulation Resistance (minimum)	Between all Isolated Pins at 100V, 25°C, 40% RH	Ω	1012	
Capacitance - Typical Across Open Contacts	No Shield Shield Floating Shield Guarding	pF pF pF	- 1.0 0.2	
Open Contact to Coil	No Shield Shield Floating Shield Guarding	pF pF pF	- 2.0 0.4	
Contact to Coil	Contacts Open, Shield Floating	pF	2	
Dielectric Strength (minimum)	Between Contacts Contacts to Shield Contacts/Shield to Coil	VDC/peak AC VDC/peak AC VDC/peak AC	250 500 500	
Operate Time - including bounce - Typical	At Nominal Coil Voltage, 30 Hz Square Wave	msec.	0.40	
Release Time - Typical		msec.	0.10	
		Top View:	2 4 6	

Top View:

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

Notes:

¹ Consult factory for life expectancy at other switching loads.

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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 $^{^2}$ Surface mount component processing temperature: $500^\circ F\,/\,260^\circ C\,$ max for 1 minute dwell time. Temperature measured on leads where lead exits molded package.