

# 9007 SERIES/SPARTAN SIP REED RELAYS



## 9007 Series Economy SIP Reed Relays

The SIP relay is the industry choice for a wide variety of designs where economy, performance and a compact package are needed. The 9007 Spartan Series is a general purpose economy version of the 9001 for applications with less stringent requirements. These relays are well suited for applications in Security, Instrumentation and Modems. The specification tables allow you to select the appropriate relay for your application.

## 9007 Series Features

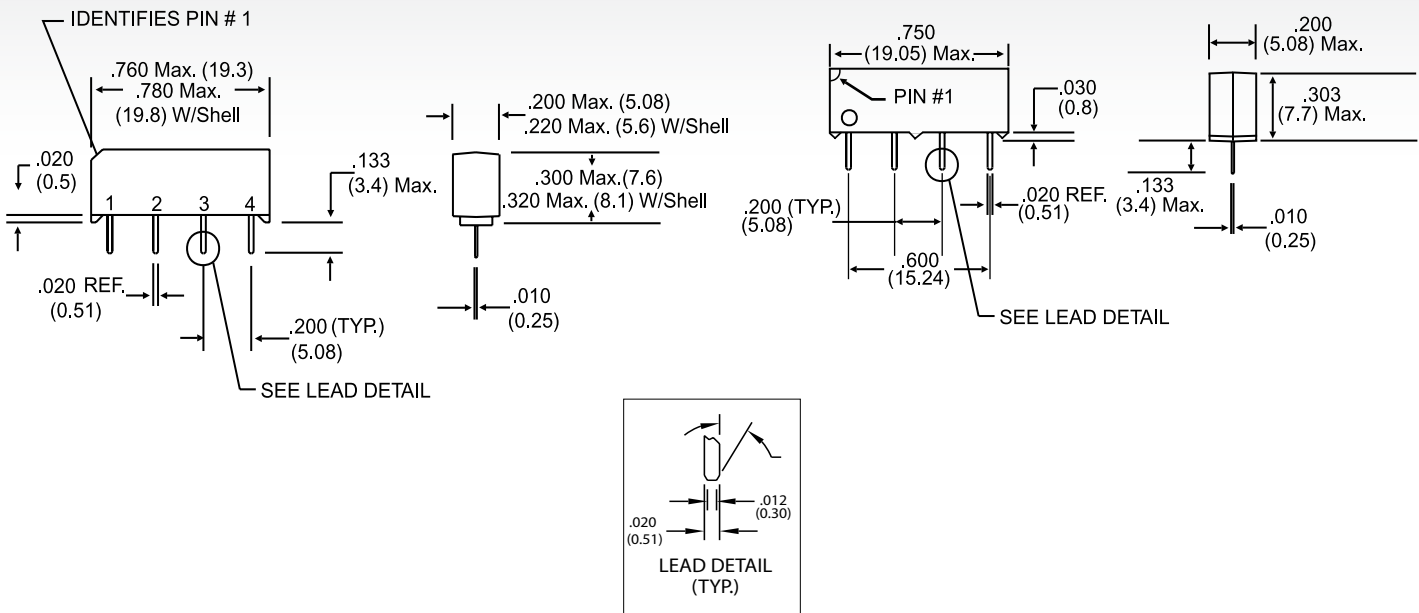
- ▶ Hermetically sealed contacts for long life
- ▶ High dielectric strength available, consult factory
- ▶ High speed switching compared to electromechanical relays
- ▶ Molded thermoset body on integral lead frame design
- ▶ Optional Coil Suppression Diode - protects coil drive circuits
- ▶ UL File #E67117, CSA File #028537 - Contact factory for details
- ▶ RoHS compliant

## DIMENSIONS

*in Inches (Millimeters)*

Model 9007

Model 9007 Alternate Package



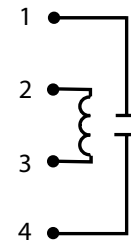
## Ordering Information

Part Number	9007-XX-XX	General Options
Model Number	9007	0=No Diode 1=Diode <sup>2</sup>
Coil Voltage	05=5 volts 12=12 volts 24 = 24 volts	
Magnetic Shield Option	0= No Shield 1= Shield (External) 4= High-Sensitivity Coil w/Mag. Shield (5V & 12V only) 5 =High-Sensitivity Coil w/o Mag. Shield (12V only)	

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MODEL NUMBER			9007 <sup>2</sup>		
Parameters	Test Conditions	Units	.2 -.2 -.2		
<b>COIL SPECS.</b>					
Nom. Coil Voltage		VDC	5	12	24
Max. Coil Voltage		VDC	6.5	15.0	32.0
Coil Resistance	+/- 10%, 25° C	Ω	500	1000	2000
Coil Resistance (hi-sensitivity)		Ω	1000	2000	----
Operate Voltage	Must Operate by	VDC - Max.	3.75	9.0	18.0
Release Voltage	Must Release by	VDC - Min.	0.4	1.0	2.0
<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	1.0		
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.	100		
Static Contact Resistance (max. init.)	50mV, 10mA	Ω	0.200		
Dynamic Contact Resistance (max. init.)	0.5V, 50mA at 100 Hz, 1.5 msec	Ω	N/A		
<b>RELAY SPECIFICATIONS</b>					
Insulation Resistance (minimum)	Between all Isolated Pins at 100V, 25°C, 40% RH	Ω	10 <sup>10</sup>		
Capacitance - Typical Across Open Contacts	No Shield	pF	0.7		
	Shield Floating	pF	-		
	Shield Guarding	pF	-		
Open Contact to Coil	No Shield	pF	1.4		
	Shield Floating	pF	-		
	Shield Guarding	pF	-		
Contact to Shield	Contacts Open, Shield Floating	pF	-		
Dielectric Strength (minimum)	Between Contacts	VDC/peak AC	250		
	Contacts to Shield	VDC/peak AC	-		
	Contacts/Shield to Coil	VDC/peak AC	1500		
Operate Time - including bounce - Typical	At Nominal Coil Voltage, 30 Hz Square Wave	msec.	0.50		
Release Time - Typical		msec.	0.20		

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



#### Notes:

- <sup>1</sup> Consult factory for life expectancy at other switching loads.
- <sup>2</sup> Optional diode is connected to pin #2(+) and pin #3(-). Correct coil polarity must be observed.

#### 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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