# 9007 SERIES/SPARTAN SIP REED RELAYS

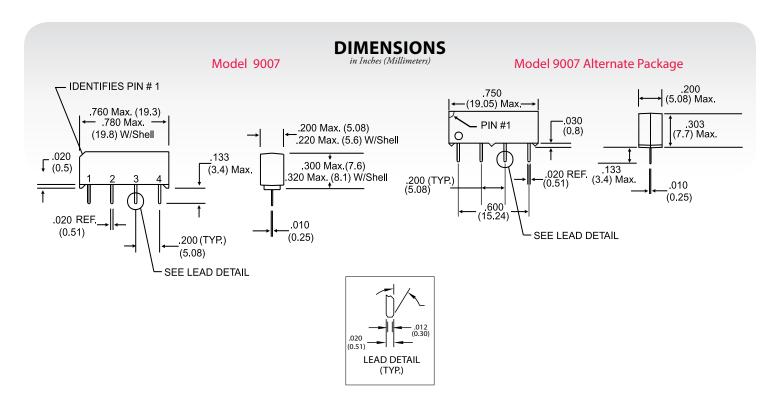


### 9007 Series Economy SIP Reed Relays

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



#### **Ordering Information** 9007-XX-XX **Part Number Model Number General Options** 0=No Diode 1=Diode2

**Coil Voltage** 05=5 volts 12=12 volts 24 = 24 volts

**Magnetic Shield Option** 

0= No Shield

9007

- 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	<b>Test Conditions</b>	Units		.222	
COIL SPECS.					
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
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		1.0	
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	
RELAY SPECIFICATION	IS				
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 Shield Floating Shield Guarding	pF pF pF		0.7 - -	
Open Contact to Coil	No Shield Shield Floating Shield Guarding	pF pF pF		1.4 - -	
Contact to Shield	Contacts Open, Shield Floating	pF		-	
Dielectric Strength (minimum)	Between Contacts Contacts to Shield Contacts/Shield to Coil	VDC/peak AC VDC/peak AC VDC/peak AC		250 - 1500	
Operate Time - including bounce - Typical	At Nominal Coil Voltage, 30 Hz Square Wave	msec.		0.50	
Release Time - Typical		msec.		0.20	
	Grid = .1"x.1" (2.54	Top View: mm x 2.54mm)		1 •	

#### Notes:

<sup>1</sup> Consult factory for life expectancy at other switching loads.

## **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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<sup>&</sup>lt;sup>2</sup> Optional diode is connected to pin #2(+) and pin #3(-). Correct coil polarity must be observed.