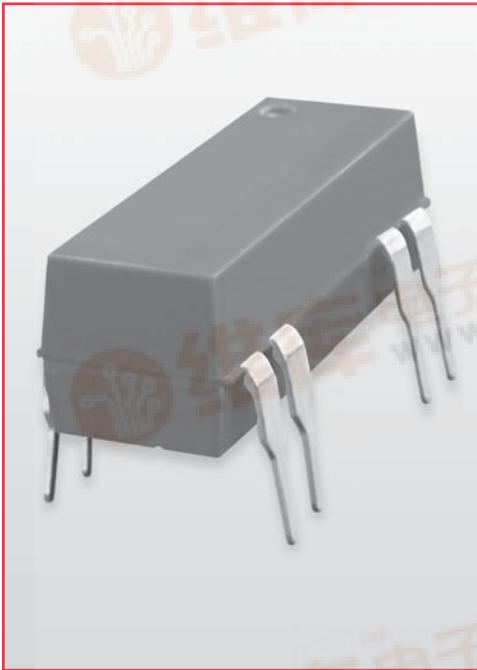


8000 Series/DIP Reed Relays

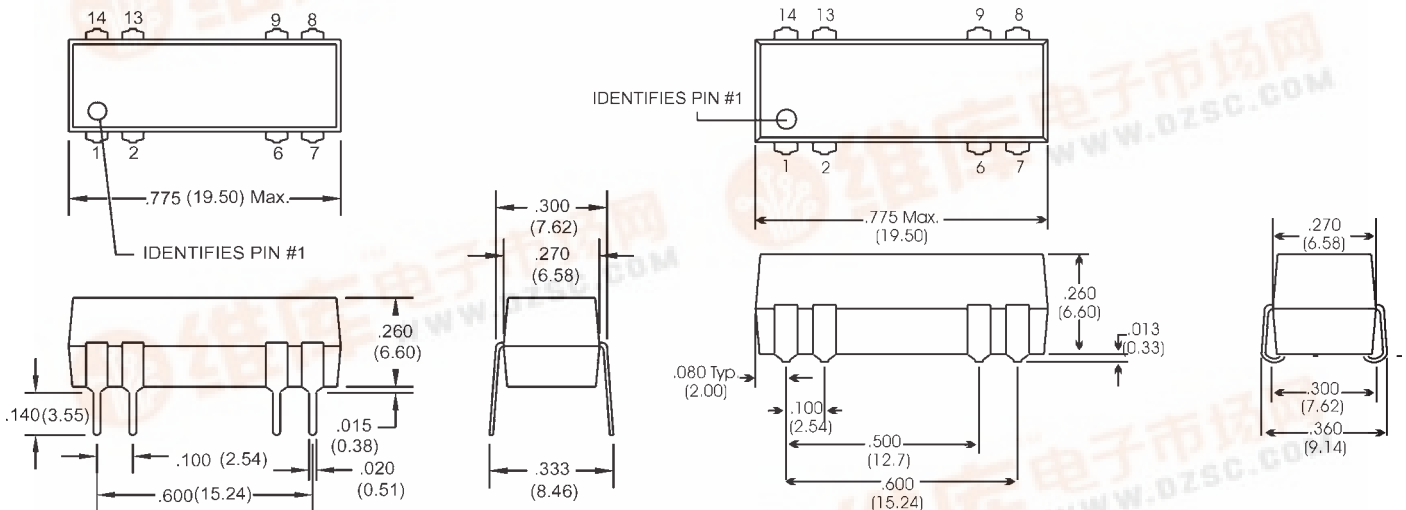


DIP Reed Relays

The 8000 Series is ideally suited to the needs of Automated Test Equipment, Instrumentation, Data Acquisition, and Process Control requirements. The specification tables allow you to select the appropriate relay for your particular application. If your requirements differ from the selection options, please consult your local representative or Coto's Factory to discuss a custom reed relay.

8000 Series Features

- ◆ 14-Pin DIP industry standard package
- ◆ High Insulation Resistance - $10^{12} \Omega$ offered on most models
- ◆ High reliability, hermetically sealed contacts for long life (proven to 500 million operations)
- ◆ Contact forms; 1A, 2A, 1B and 1C available
- ◆ Surface mount version available
- ◆ Molded thermoset body on integral lead frame design
- ◆ Optional Electrostatic Shield for reducing capacitive coupling
- ◆ Coil suppression diode available
- ◆ High Voltage Breakdown versions available
- ◆ UL File # E67117



(For Model #'s 8001, 8002, 8021 & 8041)

(For Model # 8061)

Dimensions in Inches (Millimeters)

Ordering Information

Part Number	80XX-XX-XX1
Model Number	8001 8041 8061
Coil Voltage	05=5 volts 12=12 volts
Diode Option ³	0=No Diode 1=Diode
Shield Option ⁴	0=No Shield 1=Electrostatic Shield

Ordering Information

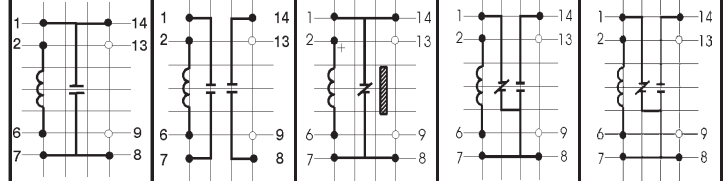
Part Number	80XX-XX-XX
Model Number	8002 8021
Coil Voltage	05=5 volts 12=12 volts
Diode Option ³	0=No Diode 1=Diode
Shield Option ⁴	0=No Shield 1=Electrostatic Shield



8000 Series/DIP Reed Relays

Model Number			8001 ^{2,3,4}		8002 ^{2,3,4}		8021 ^{2,3,4}		8041 ^{2,3,4}		8061 ^{2,3,4,5}	
Parameters	Test Conditions	Units	1 Form A		2 Form A		1 Form B		1 Form C		1 Form C SMD	
COIL SPECS.												
Nom. Coil Voltage		VDC	5	12	5	12	5	12	5	12	5	12
Max. Coil Voltage		VDC	6.5	15	6.5	15	6.5	15	6.5	15	6.5	15
Coil Resistance	+/- 10%, 25° C	Ω	500	500	200	500	200	500	200	500	200	500
Operate Voltage	Must Operate by	VDC - Max.	3.8	9.6	3.8	9.6	3.8	9.6	3.8	9.6	3.8	9.6
Release Voltage	Must Release by	VDC - Min.	0.5	1.0	0.5	1.0	0.5	1.0	0.5	1.0	0.5	1.0
CONTACT RATINGS												
Switching Voltage	Max DC/Peak AC Resist.	Volts	200		200		200		100		100	
Switching Current	Max DC/Peak AC Resist.	Amps	0.5		0.5		0.5		0.25		0.25	
Carry Current	Max DC/Peak AC Resist.	Amps	1.0		1.0		1.0		0.5		0.5	
Contact Rating	Max DC/Peak AC Resist.	Watts	10		10		10		3		3	
Life Expectancy-Typical ¹	Signal Level 1.0V,10mA	x 10 ⁶ Ops.	500		500		500		100		100	
Static Contact Resistance (max. init.)	50mV, 10mA	Ω	0.150		0.150		0.150		0.200		0.200	
Dynamic Contact Resistance (max. init.)	0.5V, 50mA at 100 Hz, 1.5 msec	Ω	0.200		0.200		0.200		0.250		0.250	
RELAY SPECIFICATIONS												
Insulation Resistance (minimum)	Between all Isolated Pins at 100V, 25°C, 40% RH	Ω	10 ¹²		10 ¹²		10 ¹²		10 ¹⁰		10 ¹⁰	
Capacitance - Typical Across Open Contacts	No Shield	pF	0.5		0.5		0.5		1.5		1.5	
	Shield Floating	pF	1.0		0.5		0.5		1.5		1.5	
	Shield Guarding	pF	0.5		0.2		0.2		1.0		1.0	
Open Contact to Coil	No Shield	pF	1.5		1.5		2.5		1.5		1.5	
	Shield Floating	pF	2.0		2.0		2.0		2.0		2.0	
	Shield Guarding	pF	0.5		0.5		1.5		0.5		0.5	
Contact to Shield	Contacts Open, Shield Floating	pF	2.0		1.5		2.0		2.0		2.0	
	Between Contacts	VDC/peak AC	300		300		300		200		200	
Dielectric Strength (minimum)	Contacts to Shield	VDC/peak AC	1500		1500		1500		1500		1500	
	Contacts/Shield to Coil	VDC/peak AC	1500		1500		1500		1500		1500	
Operate Time - including bounce - Typical	At Nominal Coil Voltage, 30 Hz Square Wave	msec.	0.5		0.5		0.5		1.0		1.0	
Release Time - Typical	Diode Suppression ⁶	msec.	1.0		1.0		1.0		1.5		1.5	
	No Suppression	msec.	0.5		0.5		0.5		1.0		1.0	

Top View:
Dot stamped on top of relay refers to pin #1 location
Grid = .1"x.1" (2.54mm x 2.54mm)



Notes:

- ¹ Consult factory for life expectancy at other switching loads.
- ² Molded depression on top of relay refers to pin #1 location.
- ³ Optional coil suppression diode across pins 2 (+) and 6(-).
- ⁴ Optional ES Shield is tied to pin 9.
- ⁵ Surface mount processing temperature: 260°C max for 1 minute dwell time. Temperature measured on leads where lead exits molded package.
- ⁶ Consists of 56V Zener diode and 1N4148 diode in series, connected in parallel with coil.

Environmental Ratings

Storage Temp: -35°C to +100°C;
Operating Temp: -20°C to +85°C
Solder Temp: 270°C max; 10 sec. max
The operate and release voltage and the coil resistance are specified at 25°C.
These values vary by approximately 0.4% /°C as the ambient temperature varies.
Vibration: 20 G's to 2000 Hz; Shock: 50 G's