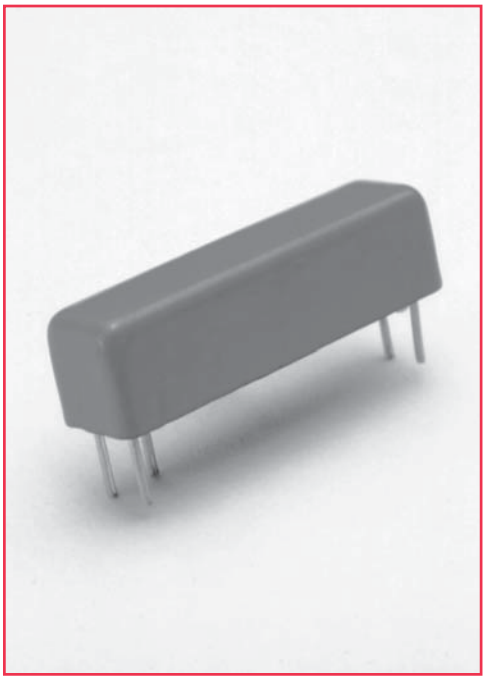
2200 Series Reed Relays



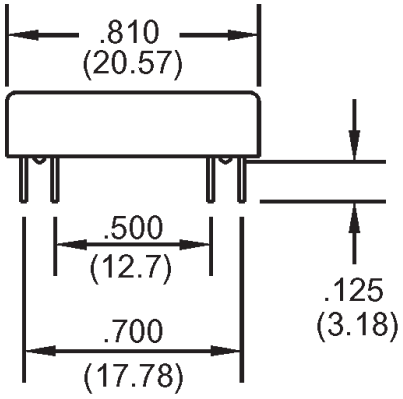
2200 Series Reed Relays

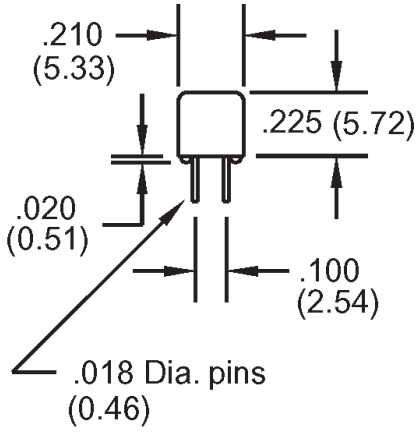
Ideally suited to the needs of Automated Test Equipment and RF requirements. The specification tables allow you to select the appropriate relay for your particular application. If your requirements differ, please consult your local representative or Coto's Factory.

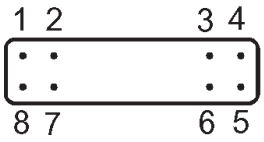
2200 Series Features

- Very small (0.17 in^2), high reliability reed relays
- High Insulation Resistance - 10^{12} Ω available with some models
- High speed switching compared to electromechanical relays
- Hermetically sealed contacts for long life
- Epoxy coated steel shell provides magnetic shielding
- Optional Electrostatic Shield for reducing capacitive coupling
- Optional Coaxial Shield for 50 Ω impedance and switching of fast rise time digital pulses offered on some models
- Relay models 2200-2301, 2200-2302, are ATE industry standards. Specifically engineered for OEM designs and maintenance of existing production fixtures

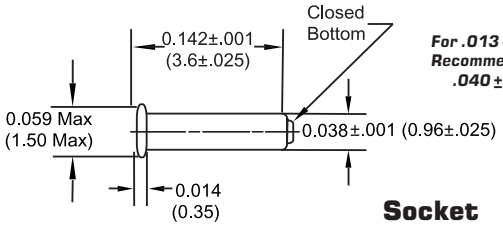
Dimensions in Inches (Millimeters)







Bottom View



For .013 - .020 (0.33 - 0.5) dia. pin Recommended mounting hole: .040 ± .002 (1.0 ± 0.05)

Socket

Note:
Model #'s 2200-2301 & 2200-2302 represent complete part numbers.

Ordering Information

Part Number XXXX-XX-XX1

Model Number
2204
2211

Coil Voltage
05 = 5 volts
12 = 12 volts

Coil Options
3 = use for Model #2204 (12 volt coil) and Model #2211 (5 & 12 volt coil)
4 = use for Model #2204 (5 volt coil)

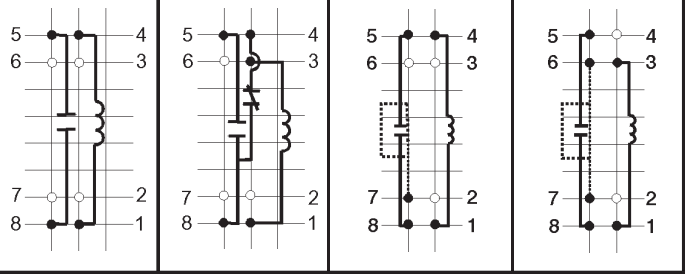
Shielding Options[2]
0 = No Shielding
1 = Electrostatic Shield (N/A on Model #2211)
2 = Coaxial Shield (N/A on Model #2211)

* If Required, Order Coto Socket #0116-0100-0000

2200 Series Reed Relays

Model Number			2204	2211	2200-2301	2200-2302
Parameters	**Test Conditions**	**Units**	**1 Form A**	**1 Form C**	**1 Form A Electrostatic Shield**	**1 Form A Coaxial Shield**
COIL SPECS.						
Nom. Coil Voltage		VDC	5 12	5 12	5	5
Coil Resistance	+/- 10%, 25° C	Ω	370 1500	230 1500	150	150
Operate Voltage	Must Operate by	VDC - Max.	3.8 9.0	3.8 9.0	3.6	3.6
Release Voltage	Must Release by	VDC - Min.	0.4 1.0	0.4 1.0	0.5	0.5
CONTACT RATINGS						
Switching Voltage	Max DC/Peak AC Resist.	Volts	200	100	150	150
Switching Current	Max DC/Peak AC Resist.	Amps	0.5	0.25	0.5	0.5
Carry Current	Max DC/Peak AC Resist.	Amps	1.0	0.5	1.0	1.0
Contact Rating	Max DC/Peak AC Resist.	Watts	10	3	10	10
Life Expectancy-Typical [1]	Signal Level 1.0V,10mA	x 10^6 Ops.	500	100	500	500
Rated Loads		x 10^6 Ops.	5	5	5	5
Static Contact Resistance (max. init.)	50mV, 10mA	Ω	0.100	0.150	0.150	0.150
Dynamic Contact Resistance (max. init.)	0.5V, 50mA at 100 Hz, 1.5 msec	Ω	0.200	0.200	0.200	0.200
RELAY SPECIFICATIONS						
Insulation Resistance (minimum)	Between all Isolated Pins .at 100V, 25°C, 40% RH	Ω	10^{12}	10^{11}	10^{11}	10^{11}
Capacitance - Typical	Shield Floating	pF	0.9	0.9	0.9	0.9
Across Open Contacts	Shield Guarding	pF	0.2	N/A	0.2	0.2
Dielectric Strength (minimum)	Between Contacts	VDC/peak AC	250	200	250	250
	Contacts to Shield	VDC/peak AC	250	N/A	250	250
	Contacts/Shield to Coil	VDC/peak AC	1500	1500	1500	1500
Operate Time - including bounce	At Nominal Coil Voltage, 30 Hz Square Wave	msec.	0.5 (typ.)	1.0 (typ.)	0.55 (max.)	0.55 (max.)
Release Time - Typical	Zener-Diode Suppression [3]	msec.	0.1	2.0	0.1	0.1

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]Model 2204, pin #7 is tied to optional electrostatic shield, pins #6 & #7 are tied to optional coaxial shield.

[3]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