

# Microminiature 1 Amp Signal Relay



PC302

### **FEATURES**

- Microminiature Design
- DIL Package for PC Board or Socket
- Low 5mm Profile
- Meets FCC Part 68 Voltage Surge
- · Bifurcated Contacts for High Sensitivity



### **UL / CUL Ratings**

Contact Form	2 Form C, DPDT bifurcated contacts		
Rated Load	Voltage	Amps	
Resistive, 6K cycles, 40°C	30VDC	1A	
Resistive, 6K cycles, 40°C	125VAC	.5A	

#### CONTACT DATA

Maximum Switching Power	30W
Maximum Switching Voltage	250VAC, 48VDC
Maximum Switching Current	1A
Material	AgPd, Au Plated
Initial Contact Resistance	50 mΩ max.
Service Life Mechanical	1 x 10 <sup>7</sup> operations
Electrical	1 x 10 <sup>5</sup> operations

### **CHARACTERISTICS**

Insulation Resistance	100M $\Omega$ min. at 500 VDC		
Dielectric Strength	1500V rms, between coil & contacts		
	1000V rms, between contacts		
	1000V rms, between poles		
Initial Surge Voltage	2500V (Telcordia, 2X10us), between coil & contacts		
	1500V (FCC part 68, 10x60us), between contacts		
Power Consumption	.14W, .20W, .30W, .40W		
Terminal Strength	5N		
Solderability	260°C 5 s ± 0.5 s		
Operating Temperature	-40°C to 85°C		
Storage Temperature	-40°C to 155°C		
Shock Resistance	500 m/s <sup>2</sup> 11 ms		
Vibration Resistance	10-40 Hz double amplitude 3mm		
Weight	1.5g		

#### ORDERING INFORMATION

Example	PC302	-12	-X
Model:	PC302		
Coil Voltage:	5 = 5VDC 9 = 9VDC 12 = 12VDC 24 = 24VDC		
Type of Operation:	Nil = Single Side Stable L1 = Single Coil Latching L2 = Dual Coil Latching		
RoHS Compliant:	X = RoHS Compliant		,

Values can change due to the switching frequency, desired reliability levels, environmental conditions, and in-rush current levels. It is recommended to test to actual load conditions for the application. It is the users responsibility to determine the performance suitability for their specific application. The use of any coil voltage less than the rated coil voltage may compromise the operation of the relay.



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## **COIL DATA - Single Side Stable**

Coil V	/oltage	Resistance	Pick Up Voltage Max.	k Up Voltage Max. Release Voltage Min. Coil Power Operate Time	Operate Time	Release Time	
Rated	Maximum	(Ohms ± 10%)	VDC	VDC	W	ms	ms
5	6.5	178	3.75	.5			
9	11.7	579	6.75	.9	.14	4	4
12	18.0	1028	9.00	1.2		4	4
24	36.0	2880	18.00	2.4	.20		

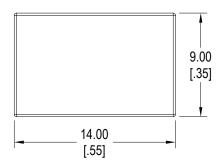
## **COIL DATA - Single Coil Latching**

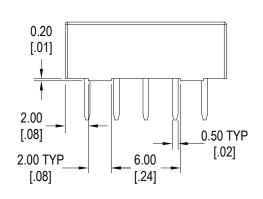
Coil \	/oltage	Resistance	Pick Up Voltage Max.	Pulse Magnitude	Coil Power	Operate Time	Release Time
Rated	Maximum	(Ohms ± 10%)	VDC	ms	W	ms	ms
5	14.5	62.5	3.5	≥50	≥50 .40 ≤10		
9	26.1	202.5	6.3			<10	
12	34.8	360.0	8.4		.40	≥10	≤10
24	57.6	1440.0	16.8				

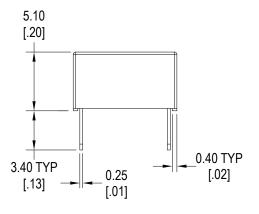
## **COIL DATA - Dual Coil Latching**

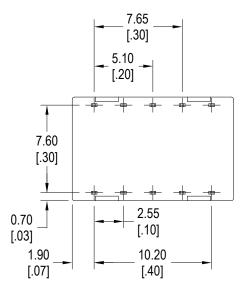
Coil Voltage		Resistance	Pick Up Voltage Max.	Pulse Magnitude	Coil Power	Operate Time	Release Time	
Rated	Maximum	(Ohms ± 10%)	VDC	ms	W	ms	ms	
5	10	125	3.75	≥50				
9	18	405	6.75		.20	.20	.20 ≤10	<10
12	24	720	9.00			≥10	≤10	
24	36	1920	18.00		.30			

## **DIMENSIONS** mm (inches)









### **SCHEMATICS & PC LAYOUT** Bottom Views

