

# Ultraminiature Automotive PCB Twin Power Relay

**PC549**



## FEATURES

- Ultra Miniature Design
- 2 A (SPST NO) and 2 C (SPDT) Contacts Forms Available
- Contact Switching Capacity Up to 100 A
- Sealed, Immersion Cleanable
- -40 to 105 Degrees C Operation Temperature
- RoHS Compliant
- **Available as a Single See PC537**

## CONTACT RATING 14 VDC @ 25°C

Contact	2 Form A or 2 Form C	
	Normally Open	Normally Closed
Rated Load (Resistive)	30 A/14 VDC	25 A/14 VDC
Max. Switching Current	Make 100 A*	
	Break 40 A	
Max. Switching Voltage	28 VDC	
Max. Continuous Current	30 A	25 A
Max. Switching Power	420 W	
Minimum Load	0.5 A @ 12 VDC	

\*Pea Inrush Cold Filament

## CONTACT RATING 28 VDC @ 25°C

Contact	2 Form A or 2 Form C	
	Normally Open	Normally Closed
Rated Load (Resistive)	15 A/24 VDC	12.5 A/24 VDC
Max. Switching Current	Make 50 A*	
	Break 20 A	
Max. Switching Voltage	28 VDC	
Max. Continuous Current	15 A	12.5 A
Max. Switching Power	420 W	
Minimum Load	0.5 A @ 12 VDC	

## CHARACTERISTICS

Operate Time	4 ms typical
Release Time	1.5 ms typical
Insulation Resistance	1000 MΩ min, at 500 VDC, 50% RH
Dielectric Strength	500 V 50 Hz between Coil and Contacts
	500 V 50 Hz between Contacts
Shock Resistance	300 m/s <sup>2</sup> 6ms
Vibration Resistance	10 Hz - 500 Hz, DA 1.27 mm 60 m/s <sup>2</sup>
Terminal Strength	10N
Solderability	235 °C ± 2°C 3 s ± 0.5 s
Power Consumption	0.55 W, 0.57 W

## CONTACT DATA

Material	AgSnO <sub>2</sub> , AgNi, AgSnO <sub>2</sub> +AU	
Initial Contact Resistance	100 mΩ max @ 0.1 A, 6 VDC	
Service Life	Mechanical	1 X 10 <sup>7</sup> Operations
	Electrical	1 X 10 <sup>5</sup> Operations

## CHARACTERISTICS Continued

Operating Temperature Class F	- 40 to 105°C
Storage Temperature	- 40°C to 105°C
Relative Humidity	85% at 20°C
Weight	8 grams

## ORDERING INFORMATION

Example:	PC549	-2C	-12	-N	-X
Model:	<b>PC549</b>				
Contact Form:	<b>2A or 2C</b>				
Coil Voltage:	<b>10, 12, 24</b>				
Contact Material:	<b>Nil:</b> AgSnO <sub>2</sub> ; <b>N:</b> AgNi; <b>G:</b> AgSnO <sub>2</sub> + Au (Clad)				
RoHS Compliant:	<b>-X</b>				

Box Quantity 2000: Inner Box 1000

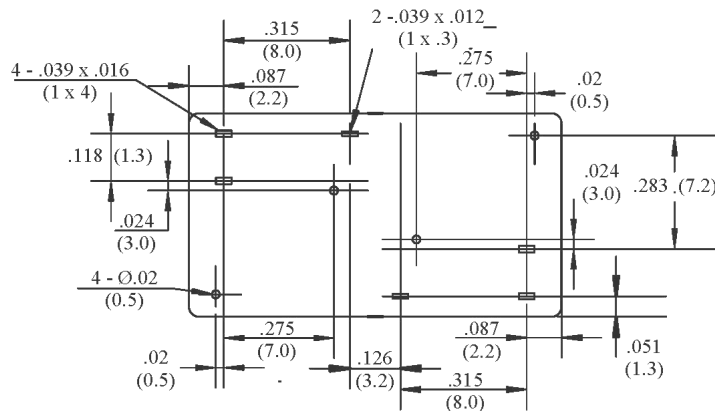
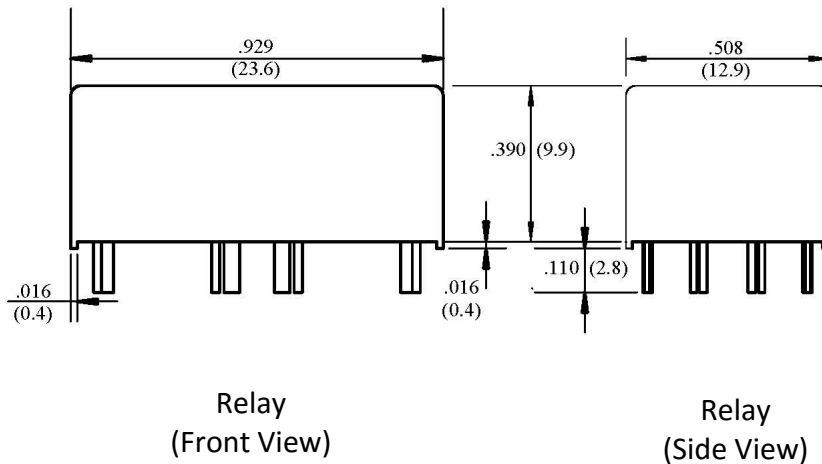
**COIL DATA**

Coil Voltage (VDC)		Coil Resistance ohms ± 10%	Must Operate Voltage Max. (VDC)	Must Release Voltage Min. (VDC)	Coil Power Consumption (W)
Rated	Max				
10	12	2 x 181	5.7	1.25	2 x 0.55
12	14.4	2 x 254	6.9	1.5	2 x 0.57
24	28.8	2 x 1010	13.8	3	2 x 0.57

**NOTES:**

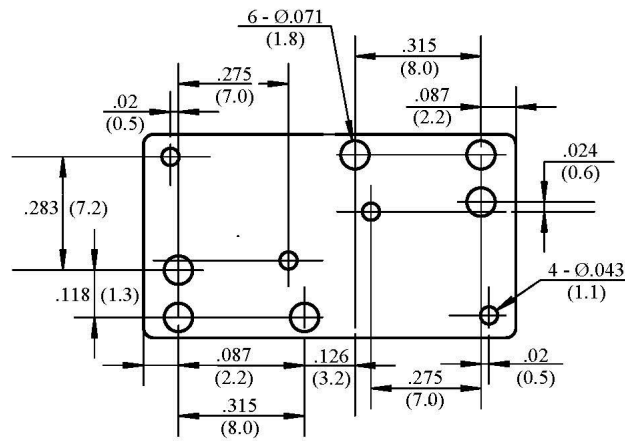
The use of any coil voltage less than the rated voltage will compromise the operation of the relays.  
 Must Operate Voltage and Release Voltages are for test purposes only and are not to be used as design criteria.

**DIMENSIONS inches/(mm)**

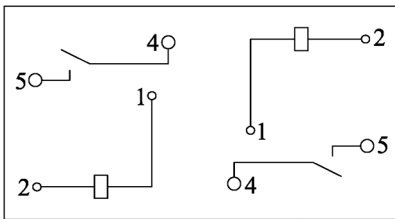


**Terminal Layout (Bottom View)**

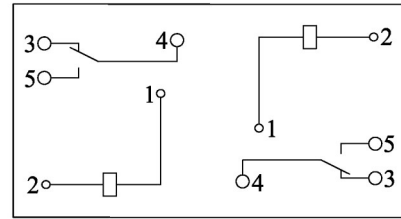
DIMENSIONS inches/(mm)



PC Board Layout  
(Top View)



2A



2C

Wiring Diagrams