

# Ultraminiature 20 Amp Automotive PCB Power Relay

**PC537B**



## FEATURES

- Ultra Miniature Design
- 1 A (SPST NO) and 1 C (SPDT) Contacts Forms Available
- Contact Switching Capacity Up to 75 A
- Sealed, Immersion Cleanable
- -40 to 105°C Operation Temperature
- See PC537 for 30/25 AMP Version
- Available as a Dual See PC549 (30A version available)

### CONTACT RATING 14 VDC @ 25°C

Contact	1 Form A (SPST-NO) or 1 Form C (SPDT)		
	Normally Open	Normally Closed	
Rated Load (Resistive)	20 A/14 VDC	15 A/14 VDC	
Max. Switching Current	Make 75 A*		
	Break 30 A		
Max. Switching Voltage	28 VDC		
Max. Carry Current	20°C	30 A for 2 min	NA
		20A For 1 Hour	NA
	85°C	25 A for 2 min	NA
		15 A for 1 Hour	NA
Max. Switching Power	280 W		
Minimum Load	0.5 A @ 12 VDC		

\*Peak Inrush Cold Filament, 5 ms maximum

### CHARACTERISTICS

Operate Time	4 ms max.
Release Time	1.5 ms max
Insulation Resistance	1000 MΩ min, at 500 VDC
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>
Power Consumption	10V at 0.55 W, 12V and 24V at 0.57 W

### ORDERING INFORMATION

Example:	PC537B	-1C	-12	S	-N	-X
Model:	<b>PC537B</b>					
Contact Form:	1A: 1 Form A (SPST-NO) 1C: 1 Form C (SPDT)					
Coil Voltage:	10, 12, 24					
Case Style:	C: Dust Cover; S: Sealed					
Contact Material:	Nil: AgSnO <sub>2</sub> ; N: AgNi; G: AgSnO <sub>2</sub> + Au (Clad)					
RoHS Compliant:	-X					

Box Quantity 2000: Inner Box 1000

### CONTACT RATING 28 VDC @ 25°C

Contact	1 Form A (SPST-NO) or 1 Form C (SPDT)	
	Normally Open	Normally Closed
Rated Load (Resistive)	10 A/24 VDC	7.5 A/24 VDC
Max. Switching Current	Make 37.5 A*	
	Break 15 A	
Max. Switching Voltage	28 VDC	
Max. Continuous Current	15 A	10 A
Max. Switching Power	280 W	
Minimum Load	0.5 A @ 12 VDC	

### 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

Terminal Strength	10N
Solderability	255 °C ± 2°C 3 s ± 0.5 s
Operating Temperature Class F	- 40 to 105°C
Storage Temperature	- 40°C to 155°C
Relative Humidity	85% at 20°C
Weight	4 grams

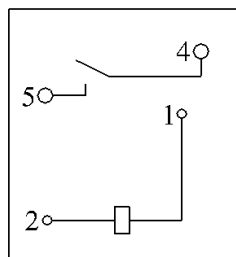
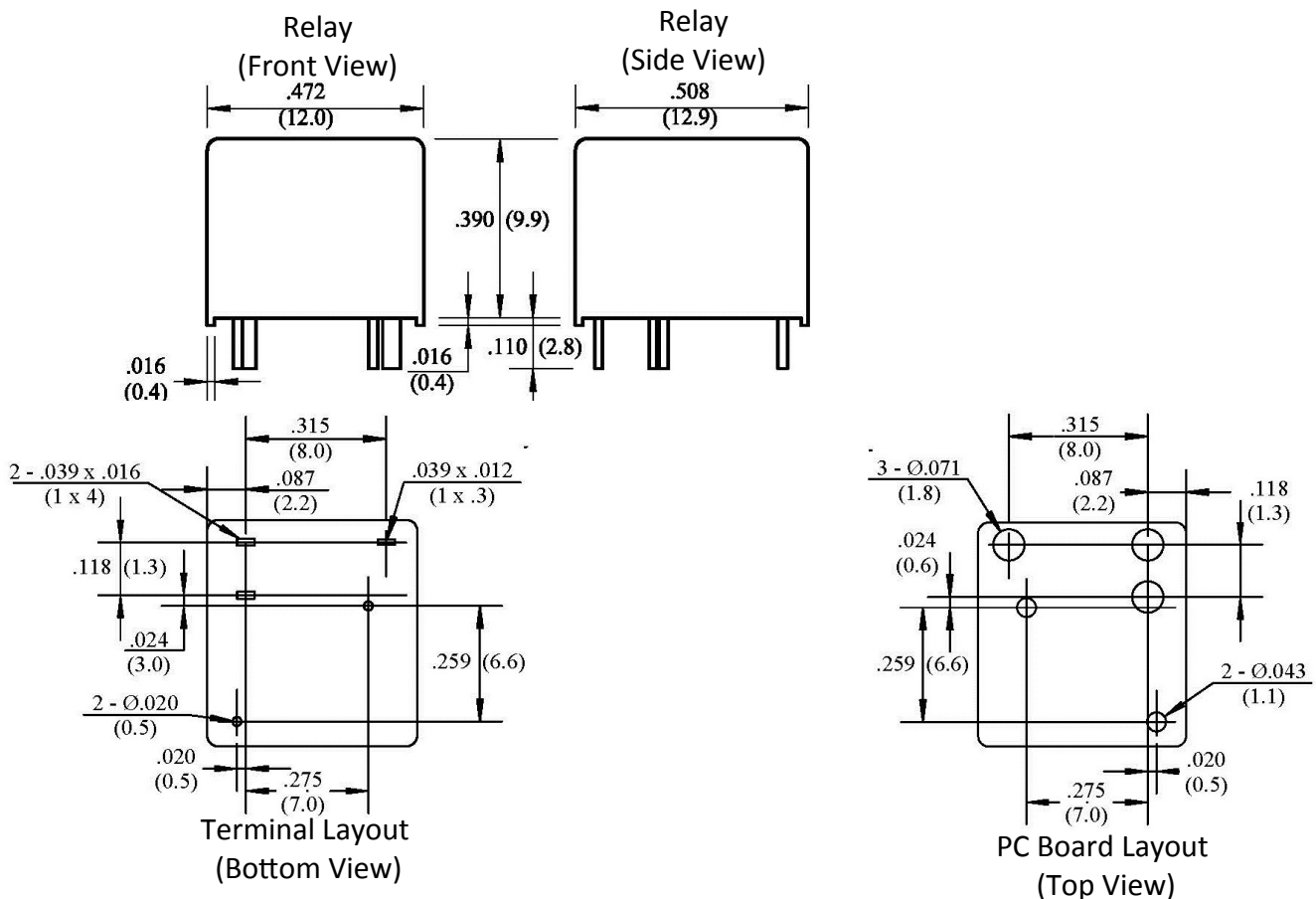
**COIL DATA**

Coil Voltage (VDC) (1)		Coil Resistance ohms ± 10%	Must Operate Voltage Max. (VDC)	Must Release Voltage Min. (VDC) (2)	Coil Power Consumption (W) (2)
Rated	Max				
10	12	181	5.7	1.25	0.55
12	14.4	254	6.9	1.5	0.57
24	28.8	1010	13.8	3	0.57

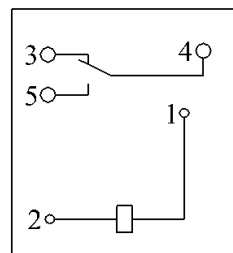
**NOTES:**

(1)The use of any coil voltage less that 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 (mm/inches)**



1A



1C

**Wiring Diagrams**