

# 20 Amp Subminiature PCB Power Relay

PC521



# C SUS E160644

Contact	Normally Open	Normally Closed		
Inductive Load	1 HP (16 FLA) at 125 VAC 1 HP (8 FLA) at 250 VAC	1/2 HP (9.8 FLA) at 125 VAC 1/2 HP (4.9 FLA) at 250 VAC		
Resistive Load	20 A at 125 VAC 100K Cycles	20 A at 125 VAC 30K Cycles		
Tungsten Load	TV-8 at 125 VAC	TV-8 at 125 VAC		
General Purpose	16 A at 277 VAC, 10 A at 250 VDC 85C 20K Cycles			
Max. Switching Power	560 W, 4450 VA			
Max. Switching Voltage	110 VDC, 380 VAC			
Max. Switching Current	20 A			

### **FEATURES**

- 20 A at 125 VAC and 16 A at 277 VAC Contact Rating
- 1 HP at 125 VAC and 250 VAC
- TV8 Rated at 125 VAC
- Class "B" Insulation Standard
- Maximum Switching Power 560 W, 4450 VA
- Popular "Sugar Cube" Footprint
- Sealed, Immersion Cleanable
- Lead Free and RoHS Compliant

#### **CONTACT DATA**

Material		AgCdO, AgSnO <sub>2</sub> , AgSnO <sub>2</sub> + Gold Plate		
Initial Contact Resistance		100 milliohms 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**

Operate Time	Less than 10 ms		
Release Time	Less than 5 ms		
Insulation Resistance	1,000 megohms min, at 500 VDC, 50% RH		
Dielectric Strength	3000 Vrms, 1 min. between coil and contacts		
Dielectric Strength	1000 Vrms, 1 min. between open contacts		
Shock Resistance	10 g, 11 ms, functional; 100 g, destructive		
Vibration Resistance	DA 1.5 mm, 10 - 55 Hz		
Power Consumption	.36 W & .45 W		

Terminal Strength	10N	
Solderability	235 °C for 3 seconds	
Operating Temperature Class F	- 40 to 105°C	
Operating Temperature Class B	- 40 to 85°C	
Storage Temperature	- 40°C to 155°C	
Relative Humidity	85% at 40°C	
Weight	10 grams	

#### ORDERING INFORMATION

Example: PC521 -1A -12 S Model: PC521 Terminals: Nil: Single Pins; D: Double Pins D1: Double Pins (without Pin 7) Contact Form: 1A, 1B, 1C Coil Voltage: 3, 6, 9, 12, 24, 48 Enclosure: S: Sealed; C: Dust Cover

Coil Sensitivity: NiI: 360 mW; 45: 450 mW

Insulation System: Nil: Class F (155C); B: Class B (130C) Contact Material: Nil: AgCdO;T: AgSnO<sub>2</sub>; G: AgSnO<sub>2</sub> + Gold Plate

RoHS Compliant: -X

Box Quantity: 2000; Inner Box: 1000

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### **COIL DATA**

Coil Voltage		Coil Power		Must Operate	Must Release
(VDC)		Resistance ohms ± 10%		Voltage Max.	Voltage Min.
Rated	Max	360 mW	450 mW	(VDC)	(VDC)
3	3.9	25	20	2.25	0.3
6	7.8	100	80	4.50	0.6
9	11.7	225	180	6.75	0.9
12	15.6	400	320	9.00	1.2
24	31.2	1600	1280	18.0	2.4
48	62.4	6400	5120	36.0	4.8

#### NOTES:

The use of any coil voltage less that the rated voltage will compromise the operation of the relays. Must Operate Voltage is listed for test purposes only and is not to be used as design criteria. Pickup and release voltages are for test purposes only and are not to be used as design criteria. Dimensions are in mm, Inches are listed for reference only.

## DIMENSIONS (mm/inches)

