

# 20 Amp Subminiature PCB Power Relay

**PC521**



## 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

## UL / CUL Ratings



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
	16 A at 250 VAC 105°C 100k Cycles	
Tungsten Load	TV-8 at 125 VAC	
General Purpose	16 A at 277 VAC 10 A at 250 VAC 85C 20K Cycles	
Max. Switching Power	560 W, 4450 VA	
Max. Switching Voltage	110 VAC, 380 VAC	
Max. Switching Current	20 A	

## CROSS REFERENCES

Song Chuan: 215/215HT series
Example: 215H-1AH-F-C-12VDC crosses to PC521-1A-12S1-T-X

## CONTACT DATA

Material	AgCdO, AgSnOInO, AgSnOInO + 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 megaohms min @ 500 VDC, 50% RH
Dielectric Strength	3,000 Vrms, 1 min. between coil and contacts
	1,000 Vrms, 1 min. between open contacts
Shock Resistance	10 g, 11 ms, functional; 100 g, destructive

## CHARACTERISTICS CONT.

Vibration Resistance	DA 1.5 mm, 10 - 55 Hz
Power Consumption	0.36 W & 0.45 W
Terminal Strength	10N
Solderability	260°C for 5 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			-T	-X	D
Model:	<b>PC521</b>								
Contact Form:	<b>1A, 1B, 1C</b>								
Coil Voltage:	<b>3, 6, 9, 12, 24, 48</b>								
Enclosure:	<b>S: Sealed; C: Dust Cover; S1: Flux Tight<sup>(1)</sup></b>								
Coil Sensitivity:	<b>Nil: 360 mW; 45: 450 mW</b>								
Insulation System:	<b>Nil: Class F (155C); B: Class B (130C)</b>								
Contact Material:	<b>Nil: AgCdO; T: AgSnO<sub>2</sub>; G*: AgSnO<sub>2</sub> + Gold Plate</b>								
RoHS Compliant:	<b>-X</b>								
Dual Pin:	<b>D</b>								

Box Quantity: 2000; Inner Box: 1000

(1) Flux Tight relays are constructed such that Flux will not enter the relay in an automated soldering process, they are NOT Suitable for water wash cleaning  
 (2) \*30,000 piece minimum order may apply - Contact Factory

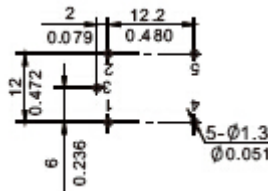
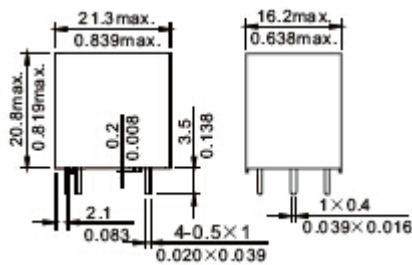
**COIL DATA**

Coil Voltage (VDC)		Coil Power Resistance ohms $\pm 10\%$		Must Operate Voltage Max. (VDC)	Must Release Voltage Min. (VDC)
Rated	Max	360 mW	450 mW		
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	1,600	1,280	18.0	2.4
48	62.4	6,400	5,120	36.0	4.8

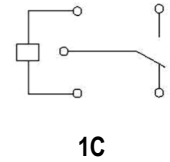
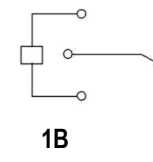
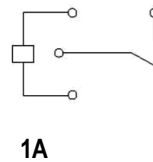
**NOTES:**

The use of any coil voltage less than 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.

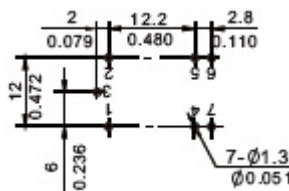
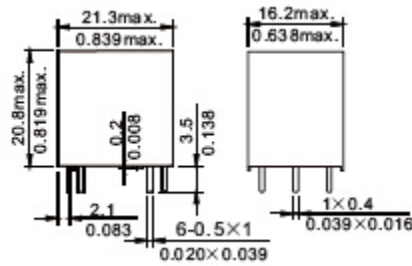
**DIMENSIONS (mm/inches)**



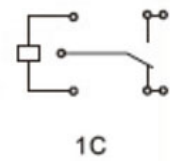
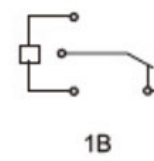
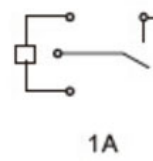
**Mounting  
( Bottom View )**



**Wire Diagrams  
Bottom View**



**Mounting  
( Bottom View )**



**Wire Diagrams  
Dual Pins  
Bottom View**