

## 20 Amp Subminiature PCB Power Relay

**PC520**

### FEATURES

- 20 A at 125 VAC and 16 A at 277 VAC Contact Rating
- 1 HP at 125 VAC and 250 VAC
- 80 Amp In Rush Current, TV-8 Rated at 125 VAC
- Class "F" Insulation Standard
- Popular "Sugar Cube" Footprint
- Sealed, Immersion Cleanable
- RoHS Compliant

### C<sup>RU</sup> US E93379

| Contact         | Normally Open                                       | Normally Closed  |
|-----------------|---|--|
| Inductive Load  | 1 HP (16 FLA) at 125 VAC<br>1 HP (8 FLA) at 250 VAC | 1/2 HP (9.8 FLA) at 125 VAC<br>1/2 HP (4.9 FLA) at 250 VAC |
| Resistive Load  | 20 A at 125 VAC<br>100K Cycles                      | 20 A at 125 VAC<br>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     |  |

### CONTACT DATA

|                            |   |                                |
|----------------------------|---|--------------------------------|
| Maximum Switching Power    | 3840 VA   |                                |
| Maximum Switching Voltage  | 250 VAC   |                                |
| Maximum Switching Current  | 20 A  |                                |
| Material                   | AgCdO, AgSnO <sub>2</sub> , AgCdO + Gold Plated |                                |
| 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 15 ms   |
| Release Time          | Less than 10 ms   |
| Insulation Resistance | 1,000 MΩ min, at 500 VDC                                      |
| Dielectric Strength   | 50 Hz 1000 V, Between Contacts                                |
|                       | 50 Hz 2500 V, Between Contact and Coil,<br>Surge Voltage: 4kV |
| Shock Resistance      | 100/ms <sup>2</sup> , 11 ms                                   |
| Vibration Resistance  | 10 - 55 Hz, DA 1.0 mm   |
| Power Consumption     | 360 mW, 450 mW, 600 mW  |

|                               |                              |
|-------------------------------|------------------------------|
| Terminal Strength             | 5N                           |
| Solderability                 | 235 °C ± 2°C for 3 s ± 0.5 s |
| Operating Temperature Class F | - 40 to 105°C                |
| Operating Temperature Class B | - 40 to 85°C                 |
| Storage Temperature           | - 40 to 155°C                |
| Relative Humidity             | 93% at 40°C                  |
| Weight                        | 10 grams                     |
| Material Compliant To         | EU RoHS V2, EU REACH V3      |

### ORDERING INFORMATION

|  |    |
|--|----|
| Example: PC520 -1C -12 S   | -X |
| Model: <b>PC520</b>  |    |
| Contact Form: <b>1A, 1B, 1C</b>                                      |    |
| Coil Voltage*: <b>3, 5, 6, 9, 12, 24, 48</b>                         |    |
| Enclosure: <b>S: Sealed; C: Dust Cover</b>                           |    |
| Coil Power: <b>Nil: .360 W, 0.45: 0.450 W, 0.60: 0.600 W;</b>        |    |
| Insulation System: <b>Nil: Class F</b>                               |    |
| Contact Material: <b>Nil: AgCdO, T: AgSnO, G: AgCdO + Gold Plate</b> |    |
| RoHS Compliant: <b>-X</b>  |    |

Note: \* Some Coil Voltages will have Minimum Orders

Box Quantity 2000: Inner Box 1000

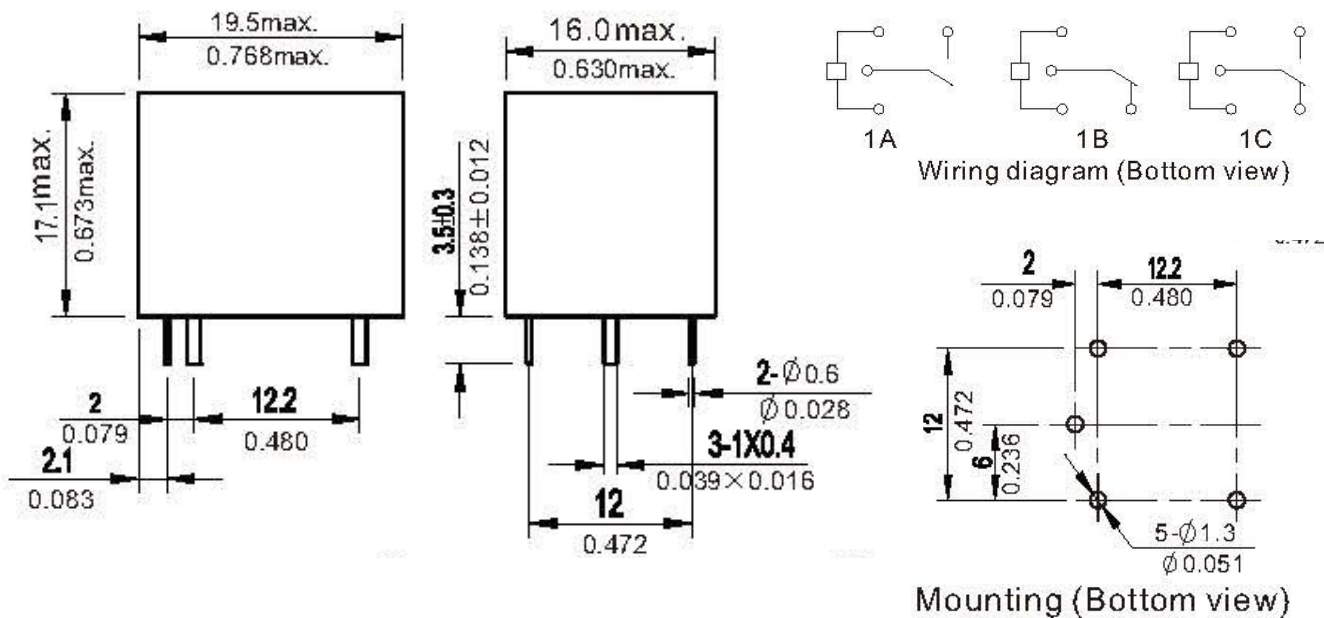
**COIL DATA**

| Coil Voltage<br>(VDC) |      | Coil Power            |        |        | Must Operate<br>Voltage Max.<br>(VDC) | Must Release<br>Voltage Min.<br>(VDC) |
|-----------------------|------|-----------------------|--------|--------|---------------------------------------|---------------------------------------|
|                       |      | Resistance ohms ± 10% |        |        |                                       |                                       |
| Rated                 | Max  | 360 mW                | 450 mW | 600 mW |                                       |                                       |
| 3                     | 3.9  | 25                    | 20     | 15     | 2.25                                  | 0.3                                   |
| 5                     | 6.5  | 69                    | 55.6   | 42     | 3.75                                  | 0.5                                   |
| 6                     | 7.8  | 100                   | 80     | 60     | 4.50                                  | 0.6                                   |
| 9                     | 11.7 | 225                   | 180    | 135    | 6.75                                  | 0.9                                   |
| 12                    | 15.6 | 400                   | 320    | 240    | 9.00                                  | 1.2                                   |
| 24                    | 31.2 | 1600                  | 1280   | 960    | 18.0                                  | 2.4                                   |
| 48                    | 62.4 | 6400                  | 5120   | 3840   | 36.0                                  | 4.8                                   |

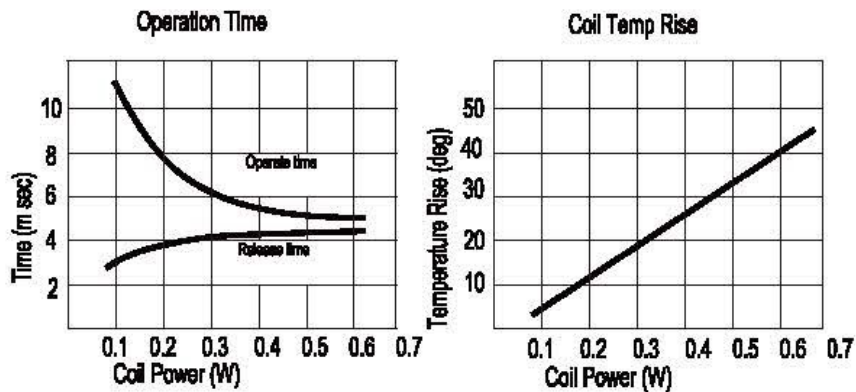
**NOTES:**

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 are in mm, Inches are listed for reference only.

**DIMENSIONS (mm/inches)**



**CHARACTERISTIC CURVES**



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