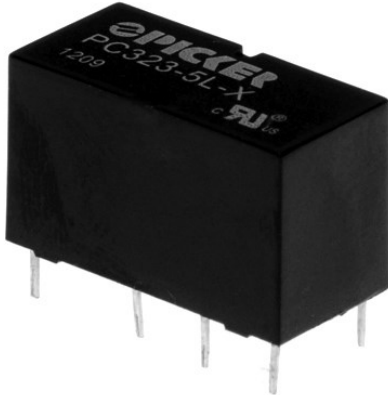


# Subminiature PCB Telecom Relay With Bifurcated Contacts

PC332



## FEATURES

- Subminiature Design
- 16 Pin DIL Package for PC Board or Socket
- Contact Capacity from 1 mA to 3 A
- Meets FCC part 68 Voltage Surge
- Class "B" Insulation Standard
- High Sensitivity Coil Option
- Bifurcated Crossbar Contacts
- Sealed Construction
- RoHS Compliant:



|                         |                                     |
|-------------------------|-------------------------------------|
| Contact Form            | 2 Form C, DPDT ( Crossbar Contacts) |
| Switching Current Range | 1 mA to 2 A                         |
| Switching Voltage Range | 10 mVAC—250 VAC; 10 mVDC—220 VDC    |
| Max, Continuous Current | 3 A                                 |
| Switching Power Range   | 10 micro W to 60 W 125 VA           |
| UI Rated Loads          | 2 A 30 VDC; 0.6 A 125 VAC           |

## CONTACT DATA

|                            |  |                                |
|----------------------------|--|--------------------------------|
| Material                   | AgRu + AU (Silver Ruthenium + Gold Clad) |                                |
| Initial Contact Resistance | 50 milliohms max @ 1 A, 200 mv, 1 KHz    |                                |
| Service Life               | Mechanical                               | 3 X 10 <sup>5</sup> Operations |
|                            | Electrical                               | 1 X 10 <sup>8</sup> Operations |

## CHARACTERISTIC

|                       |   |                |
|-----------------------|---|----------------|
| Operate Time          | Standard                                    | 5 ms. Max.     |
|                       | Sensitive H & L                             | 5 ms. Max.     |
| Operate Bounce        | Standard                                    | 1 ms Typical   |
|                       | Sensitive H & L                             | 0.5 ms Typical |
| Release Time          | Standard                                    | 3 ms. Max.     |
|                       | Sensitive H & L                             | 5 ms. Max.     |
| Release Bounce        | Standard                                    | 2 ms Typical   |
|                       | Sensitive H & L                             | 3 ms Typical   |
| Insulation Resistance | 1,000 megohms min, at 500 VDC, 50% RH       |                |
| Dielectric Strength   | 1,000 VAC, 1 min, Between Open Contacts     |                |
|                       | 1,000 VAC, 1 min, Between Coil and Contacts |                |
|                       | 1,000 VAC, 1 min, Between Contacts Poles    |                |

|                         |  |                                       |
|-------------------------|--|---------------------------------------|
| Surge Withstand Voltage | 1,500 V  |                                       |
|                         | 1,500 V  |                                       |
|                         | 1,500 V  |                                       |
| Shock Resistance        | Functional   | 100 m/s <sup>2</sup> 11 ms            |
|                         | Survival   | 1,000 m/s <sup>2</sup> 6 ms           |
| Vibration Resistance    | Functional   | 10 Hz - 55 Hz Double Amplitude 1.5 mm |
|                         | Survival   | 10 Hz - 55 Hz Double Amplitude 5 mm   |
| Terminal Strength       | 5N   |                                       |
| Solderability           | 260°C for 5 seconds  |                                       |
| Temperature Range       | - 40°C ~ 90°C (-40° F ~ 194° F)<br>(- 40°C ~ 80°C for 0.3 W Coil |                                       |
| Weight                  | 4.5 gr Approximately   |                                       |

## ORDERING INFORMATION

|                   |  |     |   |    |
|-------------------|--|-----|---|----|
| Example:          | PC332                                    | -12 | L | -X |
| Model:            | <b>PC332</b>                             |     |   |    |
| Coil Voltage:     | <b>5, 6, 9, 12, 24, 48</b>               |     |   |    |
| Contact Material: | <b>Nil: AgNi + Au; P: AgPd + Au</b>      |     |   |    |
| Coil Sensitivity: | <b>Nil: 0.30 W; L: 0.15 W; H: .0.2 W</b> |     |   |    |
| RoHS Compliant:   | <b>-X</b>                                |     |   |    |

Box Quantity: 4000; Inner Box: 1000

**COIL DATA**

| Coil Voltage |      | Resistance<br>ohms ± 10% | Must Operate<br>Voltage Max<br>(VDC) | Must Release<br>Voltage Min.<br>(VDC) | Coil<br>Power |
|--------------|------|--------------------------|--------------------------------------|---------------------------------------|---------------|
| Rated        | Max  |                          |                                      |                                       |               |
| 3            | 7.5  | 60                       | 2.1                                  | 0.15                                  | 0.15 W        |
| 5            | 12.5 | 167                      | 3.5                                  | 0.25                                  | 0.15 W        |
| 6            | 15.0 | 240                      | 4.2                                  | 0.3                                   | 0.15 W        |
| 9            | 22.5 | 540                      | 6.3                                  | 0.45                                  | 0.15 W        |
| 12           | 30.0 | 960                      | 8.4                                  | 0.6                                   | 0.15 W        |
| 18           | 40.0 | 1620                     | 12.6                                 | 0.9                                   | 0.20 W        |
| 24           | 52.9 | 2880                     | 16.8                                 | 1.2                                   | 0.20 W        |
| 48           | 84.9 | 7680                     | 33.6                                 | 2.4                                   | 0.30 W        |

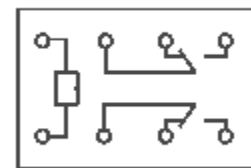
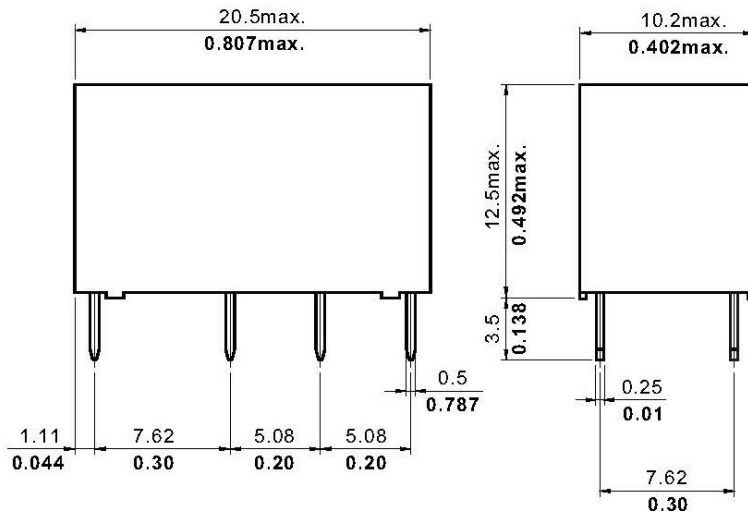
| Coil Voltage<br>(VDC) |       | Resistance<br>ohms ± 10% | Must Operate<br>Voltage Max | Must Release<br>Voltage Min. | Coil<br>Power |
|-----------------------|-------|--------------------------|-----------------------------|------------------------------|---------------|
| Rated                 | Max   |                          |                             |                              |               |
| 3                     | 6.5   | 45                       | 2.1                         | 0.3                          | 0.20 W        |
| 5                     | 10.8  | 125                      | 3.5                         | 0.5                          | 0.20 W        |
| 6                     | 13.0  | 180                      | 4.2                         | 0.6                          | 0.20 W        |
| 9                     | 19.5  | 405                      | 6.3                         | 0.9                          | 0.20 W        |
| 12                    | 26.5  | 720                      | 8.4                         | 1.2                          | 0.20 W        |
| 24                    | 52.9  | 2880                     | 16.8                        | 2.4                          | 0.20 W        |
| 48                    | 103.9 | 11520                    | 33.6                        | 4.8                          | 0.20 W        |

**NOTES:**

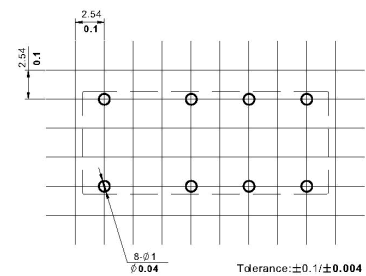
The use of any coil voltage less than the rated voltage will compromise the operation of the relays. Must Operate Voltage is listed for test purposes only and is not to be used as design criteria. Pickup and release voltages are for test purposes only and are not to be used as design criteria.

Dimensions are in mm, Inches are listed for reference only.

**DIMENSIONS (mm/inches)**



Wire Diagram  
(Bottom View)



Mounting (Bottom view)



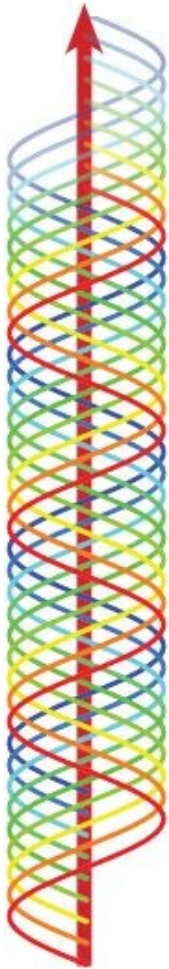
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## Signal Relays



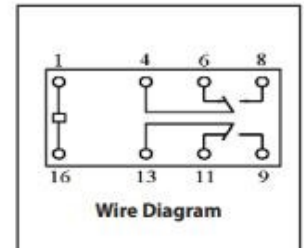
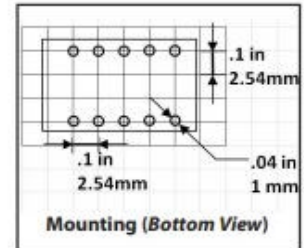
Signal Relays In Applications  
From Dry Contacts to 5 Amps



### Subminiature Signal Relays

| Current Rating At 30 VDC | Series | Coil Power Options in milliWatts |     |     |     |     |     |     |
|--------------------------|--------|----------------------------------|-----|-----|-----|-----|-----|-----|
|                          |        | 150                              | 200 | 360 | 400 | 450 | 510 | 560 |
| 1 Amp                    | PC324  |                                  |     |     | X   |     |     | X   |
| 1 Amp                    | PC323  | X                                | X   |     |     | X   |     |     |
| 2 Amps                   | PC322  | X                                | X   | X   |     |     | X   |     |
| 2 Amps                   | PC324S |                                  |     |     | X   |     |     | X   |
| 3 Amps                   | PC332  | X                                | X   |     |     |     |     |     |

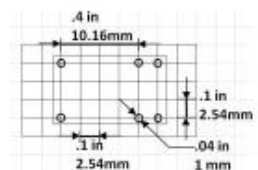
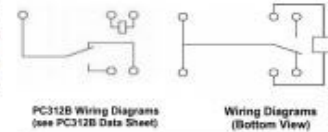
- 0.300" 16 Pin DIL Socket Footprint
- 2 Form C - DPDT (B-M)
- Gold Clad Bifurcated Contacts
- Meets FCC Part 68 Voltage Surge



| Current Rating At 30 VDC | Series | Coil Power Options in milliWatts |     |     |
|--------------------------|--------|----------------------------------|-----|-----|
|                          |        | 200                              | 360 | 450 |
| 3/5 Amps                 | PC312  | X                                | X   | X   |
| 3/5 Amps                 | PC312B | X                                | X   | X   |

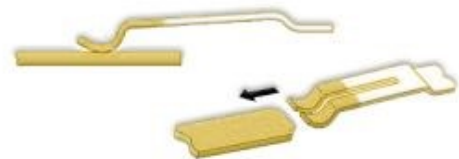
- 0.300" 12 Pin DIL Socket Footprint
- 2 Form 1A - SPST OR 1C SPDT
- Meets FCC Part 68 Voltage Surge

PC312 differs from the PC312B with a different pin configuration



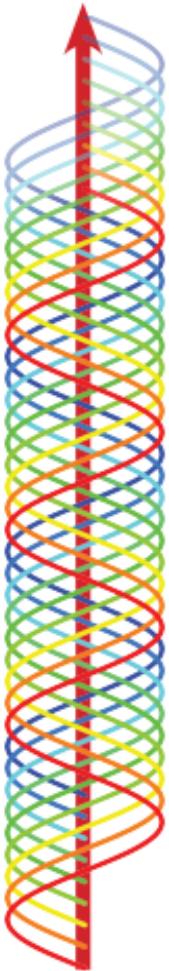
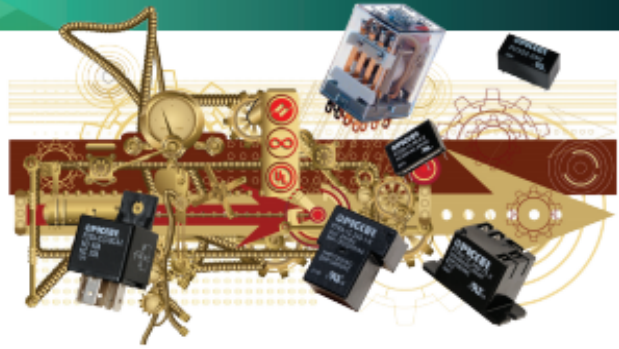
### Gold Clad Bifurcated Contacts

- Where noted, these relays utilize *Gold Clad Bifurcated Contacts*.
- These are forked contacts making a connection at two parallel contact points. This adds to the reliability of the relay by reducing the contact resistance.
- Gold is used because it does not oxidize like copper or silver which is most important in dry contact applications.



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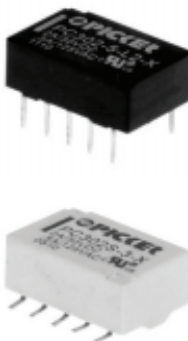
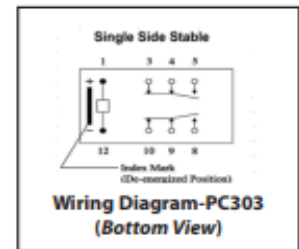
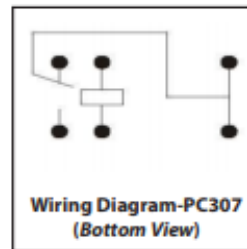
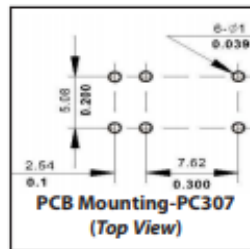
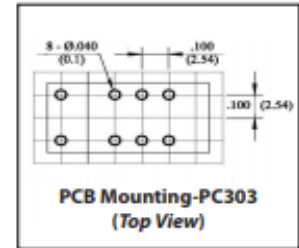




### Ultraminiature Signal Relays

| Current Rating At 30 VDC | Series | Coil Power Options in milliwatts |     |     | Contact Configuration | Optional Latching |
|--------------------------|--------|----------------------------------|-----|-----|-----------------------|-------------------|
|                          |        | 140                              | 150 | 200 |                       |                   |
| 1 Amps                   | PC307  |                                  | X   | X   | Form 1c SPST          | X                 |
| 2 Amps                   | PC303  | X                                |     |     | Form 2c DPDT (B-M)    | Single Coil       |

- 0.200" 10 Pin DIL Socket Footprint
- Gold Plated Bifurcated Contacts
- Meet FCC Part 68 Voltage Surge



### Microminiature Signal Relays

| Current Rating At 30 VDC | Series | Coil Power Options in milliwatts |     |     | Optional Latching       |
|--------------------------|--------|----------------------------------|-----|-----|-------------------------|
|                          |        | 140                              | 150 | 200 |                         |
| 2 Amps                   | PC302  | X                                |     |     | Single & Dual Coil      |
| 2 Amps                   | PC3025 | X                                |     |     | Single Coil Side Stable |

- 0.300" 10 Pin DIL Socket Footprint
- Low 5mm Profile
- Gold Plated Bifurcated Contacts
- Meet FCC Part 68 Voltage Surge
- Latching - Single and Dual Coil Latching Options

