



## PCJ series

### Slim 5 Amp Miniature Power PC Board Relay

Air Conditioners, Refrigerators, Microwave Ovens

UL File No. E82292

CSA File No. 1031444

VDE File No. 122301

#### Features

- Slim outline, L20.4 x W7 x H15 (mm).
- 1 Form A (SPST-NO) contact arrangement.
- High dielectric capacity of 4kV.
- UL, CSA, VDE approvals.
- Immersion cleanable, sealed version available.
- Cadmium-free contacts.

#### Contact Data @ 20°C

**Arrangements:** 1 Form A (SPST-NO).

**Material:** Ag Alloy.

**Max. Switching Rate:** 300 ops./ min. (no load).  
20 ops./ min. (rated load).

**Expected Mechanical Life:** 5 million ops (no load).

**Expected Electrical Life:** 10,000 ops (rated load).

**Minimum Load:** 100mA @ 5VDC.

**Initial Contact Resistance:** 100Mohms @ 1A, 6VDC.

#### Coil Data @ 20°C

| PCJ                      |                      |                              |                            |                            |
|--------------------------|----------------------|------------------------------|----------------------------|----------------------------|
| Rated Coil Voltage (VDC) | Nominal Current (mA) | Coil Resistance (ohms) ± 10% | Must Operate Voltage (VDC) | Must Release Voltage (VDC) |
| 3                        | 66.7                 | 45                           | 2.25                       | 0.15                       |
| 5                        | 40.0                 | 125                          | 3.75                       | 0.25                       |
| 6                        | 33.3                 | 180                          | 4.50                       | 0.30                       |
| 9                        | 22.5                 | 405                          | 6.75                       | 0.45                       |
| 12                       | 16.7                 | 720                          | 9.00                       | 0.60                       |
| 18                       | 11.1                 | 1,620                        | 13.50                      | 0.90                       |
| 24                       | 8.6                  | 2,880                        | 18.00                      | 1.20                       |

#### Contact Ratings

**Ratings:** 5A @ 250VAC resistive.

**Max. Switched Voltage:** AC: 275V.

DC: 30V.

**Max. Switched Current:** 5A.

**Max. Switched Power:** 1,250VA, 150W.

#### Initial Dielectric Strength

**Between Open Contacts:** 750VAC, 50/60 Hz. (1 min.).

**Between Contacts and Coil:** 4,000VAC, 50/60 Hz. (1 min.).

**Surge Voltage Between Coil and Contacts:** 7,000V (1.2/50μs).

#### Initial Insulation Resistance

**Between Mutually Insulated Conductors:** 1,000Mohm @ 500VDCM.

#### Operate Data @ 20°C

**Must Operate Voltage:** 75% of nominal voltage or less.

**Must Release Voltage:** 5% of nominal voltage or more.

**Operate Time:** 10ms max.

**Release Time:** 4ms max.

#### Environmental Data

**Temperature Range:**

**Operating:** -30°C to + 70°C.

**Vibration, Mechanical:** 10 to 55Hz., 1.5mm double amplitude.

**Operational:** 10 to 55Hz., 1.5mm double amplitude.

**Shock, Mechanical:** 1,000m/s<sup>2</sup> (10G approximately).

**Operational:** 100m/s<sup>2</sup> (10G approximately).

**Operating Humidity:** 20 to 85% RH. (Non-condensing).

#### Mechanical Data

**Termination:** Printed circuit terminals.

**Weight:** 0.14 oz. (4g) approximately.

**Ordering Information**

Typical Part Number ▶

**PCJ**

**-1**

**05**

**D**

**3**

**M**

**H**

**1. Basic Series:**

PCJ = Miniature 1 Form A relay

**2. Termination:**

1 = 1 pole

**3. Coil Voltage:**

03 = 3VDC      06 = 6VDC      12 = 12VDC  
05 = 5VDC      09 = 9VDC      24 = 24VDC

**4. Coil Input:**

D = Standard 200mW

**5. Contact Material:**

3 = AgNi

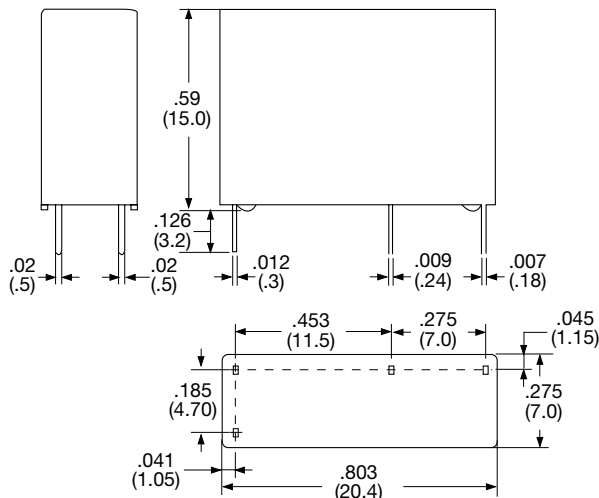
**6. Contact Arrangement:**

M = 1 Form A (NO)

**7. Enclosure:**

Blank = Vented (Flux-tight) cover      H = Sealed plastic case

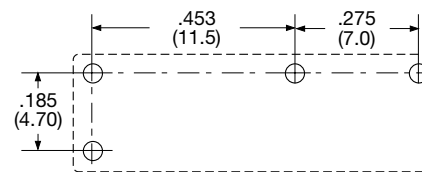
**Outline Dimensions**



**Wiring Diagram (Bottom View)**

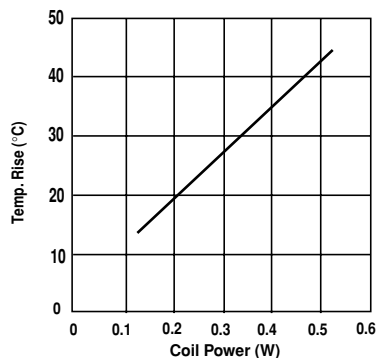


**PC Board Layout (Bottom View)**

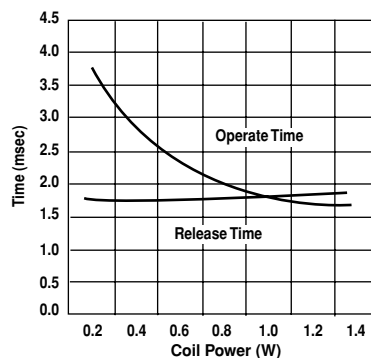


**Reference Data**

**Coil Temperature Rise**



**Operate Time**



**Life Expectancy**

