



# 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.

### Coil Data

**Voltage:** 3 to 24VDC.

**Duty Cycle:** Continuous.

**Nominal Power:** 200mW.

**Max. Coil Power:** 130% of nominal.

### 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> (100G 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

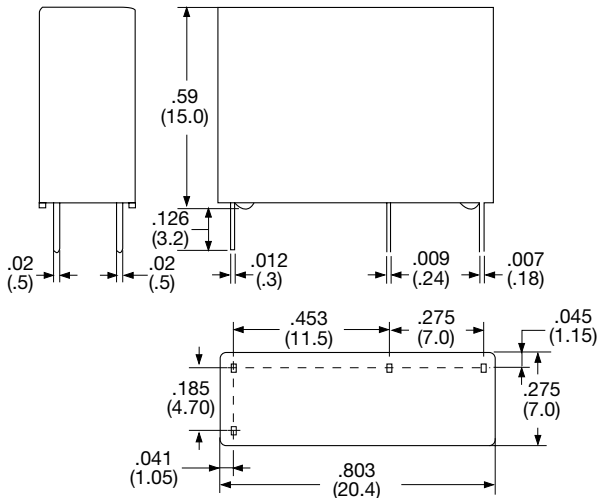
6. Contact Arrangement:

M = 1 Form A (NO)

7. Enclosure:

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

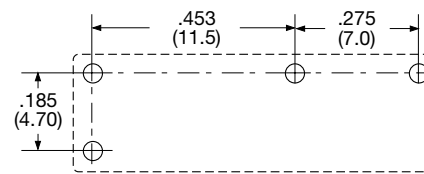
Outline Dimensions



Wiring Diagram (Bottom View)

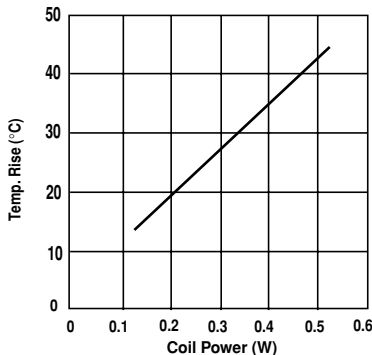


PC Board Layout (Bottom View)

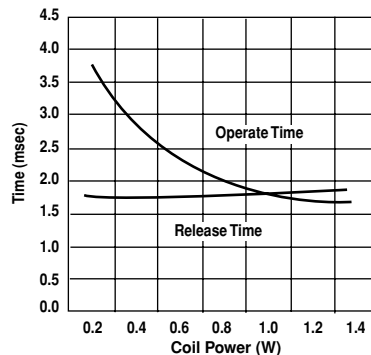


Reference Data

Coil Temperature Rise



Operate Time



Life Expectancy

