

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

Users should thoroughly review the technical data before selecting a product part number. It is recommended that user also seek out the pertinent approvals files of the agencies/laboratories and review them to ensure the product meets the requirements for a given application.

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: 100,000 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)
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: 5 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/s² (100G approximately).

Operational: 100m/s² (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 ,000

1. Basic Series:

PCJ = Miniature 1 Form A relay

2. Termination:

1 = 1 pole

3. Coil Voltage:

05 = 5VDC	09 = 9VDC	18 = 18VDC
06 = 6VDC	12 = 12VDC	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

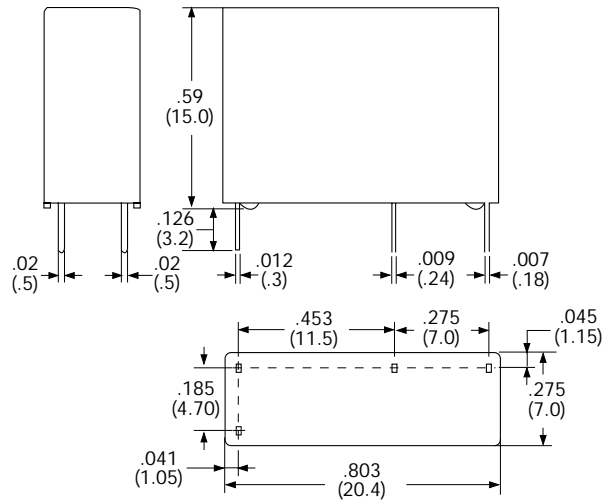
8. Suffix:

,000 = Standard model Other Suffix = Custom model

Our authorized distributors are more likely to maintain the following items in stock for immediate delivery.

PCJ-105D3MH,000
PCJ-112D3MH,000
PCJ-124D3MH,000

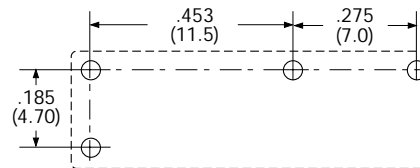
Outline Dimensions



Wiring Diagram (Bottom View)

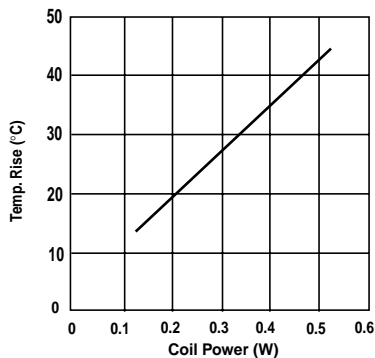


PC Board Layout (Bottom View)

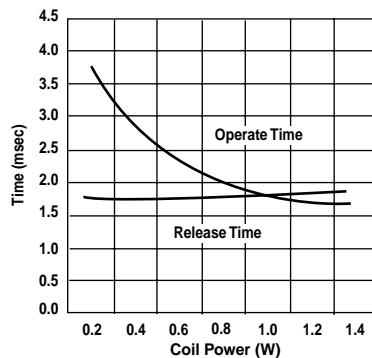


Reference Data

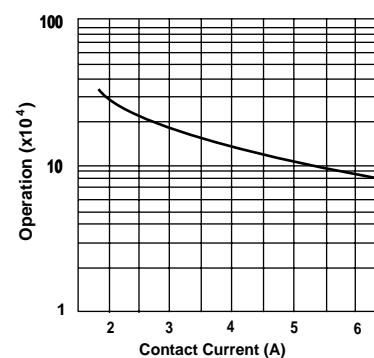
Coil Temperature Rise



Operate Time



Life Expectancy



Dimensions are shown for reference purposes only.

Dimensions are in inches over (millimeters) unless otherwise specified.

Specifications and availability subject to change.

www.tycoelectronics.com
Technical support:
Refer to inside back cover.