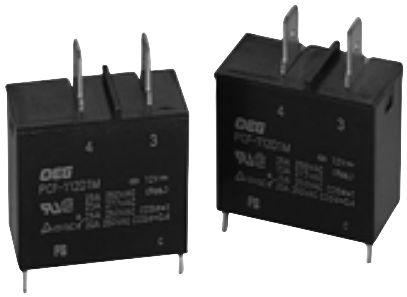


PCF series

25A Miniature Power PC Board Relay

Appliances, HVAC, Office Machines.

UL File No. E58304
CSA File No. LR48471
TUV File No. R9551880

Features

- Meet UL 508, CSA, TUV requirements.
- 1 Form A contact arrangements.
- Quick connect terminal type and PC board type.
- Meet 5,000V dielectric voltage between coil and contacts.
- Meet 10,000V surge voltage between coil and contacts (1.2 / 50µs).

Contact Data @ 20°C

Arrangements: 1 Form A.
Material: AgSnO
Max. Switching Rate: 300 ops./min. (no load).
30 ops./min. (rated load).
Expected Mechanical Life: 10 million operations (no load).
Expected Electrical Life: 100,000 operations (rated load).
Minimum Load: 100mA @ 5VDC.
Initial Contact Resistance: 100 milliohms @ 1A, 6VDC.

Contact Ratings

Ratings: 25A @ 250VAC resistive.
23A @ 277VAC resistive.

20A @ 250VAC inductive (cosø= 0.4).

Max. Switched Voltage: AC: 250V.
Max. Switched Current: 25A.
Max. Switched Power: 6,370VA.

Initial Dielectric Strength

Between Open Contacts: 1,000VAC 50/60 Hz. (1 minute).
Between Coil and Contacts: 5,000VAC 50/60 Hz. (1 minute).
Surge Voltage Between Coil and Contacts: 8,000V (1.2 / 50µs).

Initial Insulation Resistance

Between Mutually Insulated Elements: 1,000M ohms min. @ 500VDCM.

Coil Data

Voltage: 3 to 48VDC.
Nominal Power: 900 mW.
Coil Temperature Rise: 55°C max., at rated coil voltage.
Max. Coil Power: 130% of nominal.
Duty Cycle: Continuous.

Coil Data @ 20°C

PCF / PCFN				
Rated Coil Voltage (VDC)	Nominal Current (mA)	Coil Resistance (ohms) ± 10%	Must Operate Voltage (VDC)	Must Release Voltage (VDC)
06	150.0	40	4.50	0.30
09	100.0	90	6.75	0.45
12	75.0	160	9.00	0.60
24	37.5	640	18.00	1.20
48	18.8	2,560	36.00	2.40

Operate Data

Must Operate Voltage: 75% of nominal voltage or less.
Must Release Voltage: 5% of nominal voltage or more.
Operate Time: 20 ms max.
Release Time: 10 ms max.

Environmental Data

Temperature Range:
Operating: -30°C to +55°C
Vibration, Mechanical: 10 to 55 Hz., 1.5mm double amplitude
Operational: 10 to 55 Hz., 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 PCF: Printed circuit terminals with quick connect terminals.
PCFN: Printed circuit terminals.
Enclosure (94V-0 Flammability Ratings):
PCF / PCFN: Vented (Flux-tight) plastic cover.
Weight: 0.99 oz (28g) approximately.

Ordering Information

Typical Part Number ▶	PCFN	-1	24	D	2	M

1. Basic Series:
PCFN = 25A PC Board Terminals
PCF = Quick Connect Terminals

2. Enclosure:
1 = 1 pole

3. Coil Voltage:
06 = 6VDC 12 = 12VDC 48 = 48VDC
09 = 9VDC 24 = 24VDC

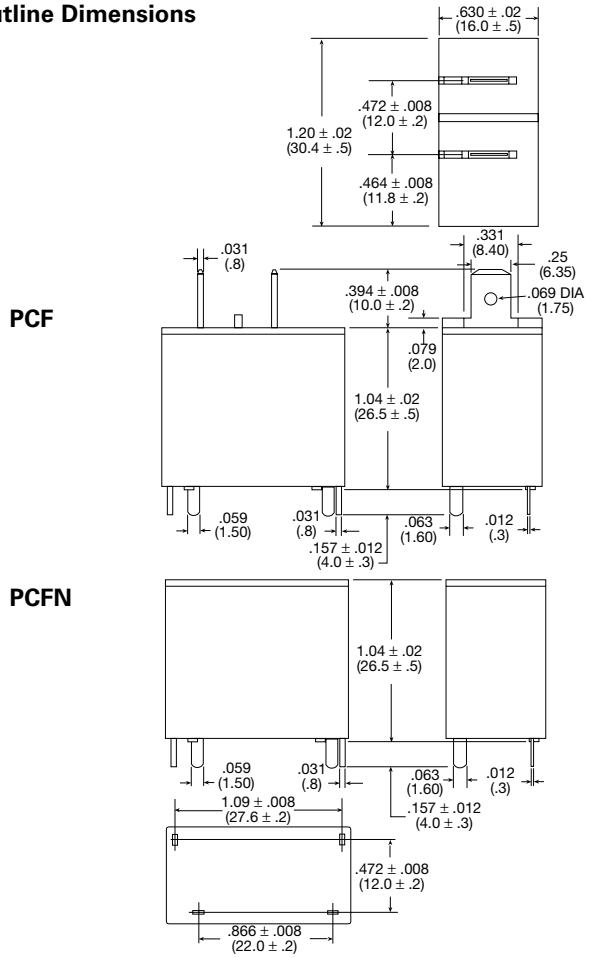
4. Coil Input:
D = Standard

5. Contact Material:
2 = AgSnO

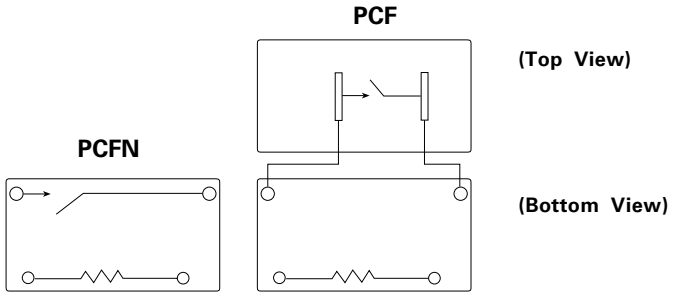
6. Contact Arrangement:
M = 1 Form A, SPST-NO

* Not suitable for immersion cleaning processes.

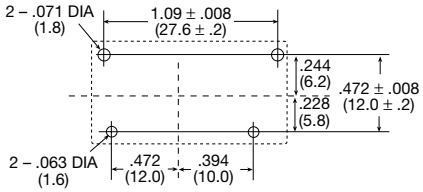
Outline Dimensions



Wiring Diagram

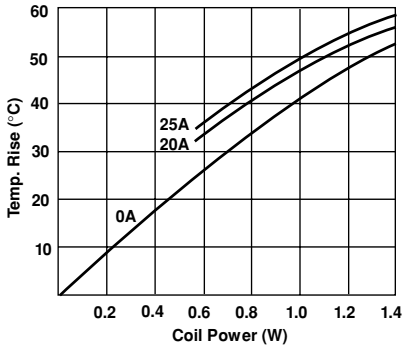


PC Board Layout (Bottom View)

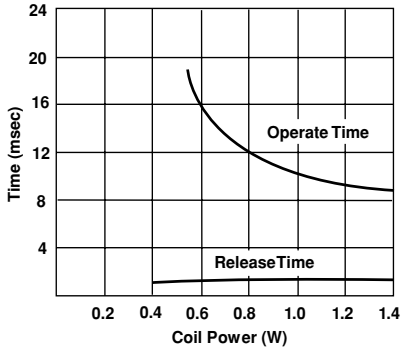


Reference Data

Coil Temperature Rise



Operate Time



Life Expectancy