PCG series

2 Pole Miniature Power PC Board Relay

Appliances, Audio Equipment, Office Machines

- UL File No. E82292
- CSA File No. LR48471
- SEMKO File No. 8744066
- SEV File No. 98110096

Features

- Meet UL Tungsten TV-5 rating.
- 2 Form A contact arrangements.
- Meet UL, CSA, SEMKO and SEV requirements.
- Meet 4,000V dielectric voltage between coil and contacts.
- Meet 10,000V surge voltage between coil and contacts (1.2 / 50µs).

Contact Data @ 20°C

Arrangements: 2 Form A (DPST-NO).
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: 5A @ 250VAC resistive, 100,000ops.
8A @ 250VDC resistive, 50,000ops.
TV-5 @ 120VAC Tungsten, 25,000ops.

Max. Switched Voltage: **AC:** 277V.
DC: 30V.
Max. Switched Current: 10A.
Max. Switched Power: 1,250VA, 380W.

Initial Dielectric Strength

Between Open Contacts: 1,000VAC 50/60 Hz. (1 minute).
Between Coil and Contacts: 4,000VAC 50/60 Hz. (1 minute).
Surge Voltage Between Coil and Contacts: 10,000V (1.2 / 50µs).
Surge Voltage Between Contact and other Pole: 6,000V (1.2 / 50µs).

Initial Insulation Resistance

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

Coil Data

Voltage: 3 to 48VDC.
Nominal Power: 540 mW
Coil Temperature Rise: 50°C max., at rated coil voltage.
Max. Coil Power: 130% of nominal.
Duty Cycle: Continuous.

Coil Data @ 20°C

PCG				
Rated Coil Voltage (VDC)	**Nominal Current (mA)**	**Coil Resistance (ohms) ± 10%**	**Must Operate Voltage (VDC)**	**Must Release Voltage (VDC)**
3	176.5	17	2.40	0.15
5	106.4	47	4.00	0.25
6	88.0	68	4.80	0.30
9	58.0	155	7.20	0.45
12	44.4	270	9.60	0.60
24	21.8	1,100	19.20	1.20
48	11.0	4,400	38.40	2.40

Operate Data

Must Operate Voltage: 80% of nominal voltage or less.
Must Release Voltage: 5% of nominal voltage or more.
Operate Time: 15 ms max.
Release Time: 5 ms max.

Environmental Data

Temperature Range:
Operating: -30°C to +70°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: Printed circuit terminals.
Enclosure (94V-0 Flammability Ratings):
PCG-N: Vented (Flux-tight) snap-on cover.
Weight: 0.63 oz (18g) approximately.

Ordering Information

Typical Part Number ▶	PCG	-2	24	D	2	M	N

1. Basic Series:
PCG = Miniature Power PC board relay.

2. Termination:
2 = 2 pole.

3. Coil Voltage:
03 = 3VDC 06 = 6VDC 12 = 12VDC 48 = 48VDC
05 = 5VDC 09 = 9VDC 24 = 24VDC

4. Coil Input:
D = Standard

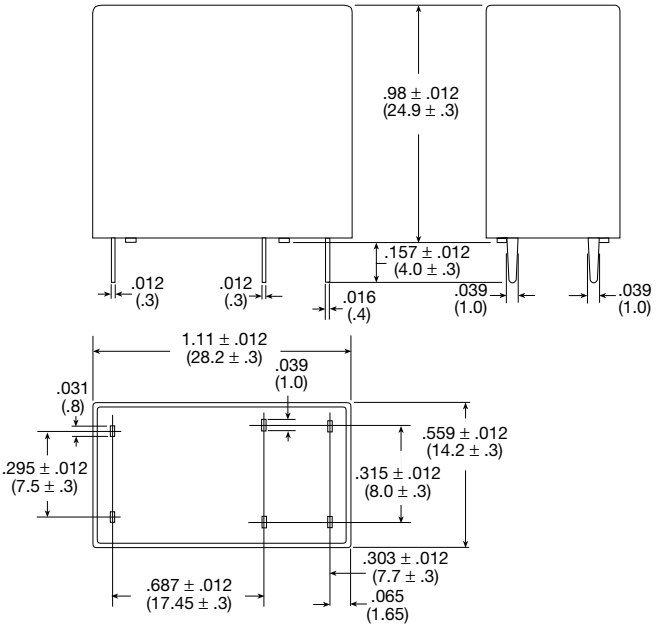
5. Contact Material:
2 = AgSnO

6. Contact Arrangement:
M = 2 Form A, DPST-NO.

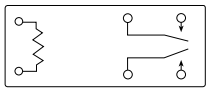
7. Contact Rating:
N = Vented (Flux-tight)* snap-on cover.

* Not suitable for immersion cleaning processes.

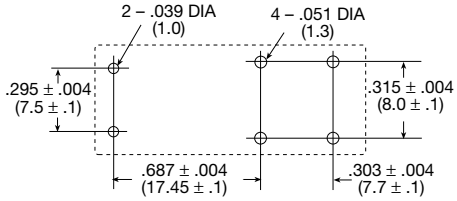
Outline Dimensions



Wiring Diagram (Bottom View)

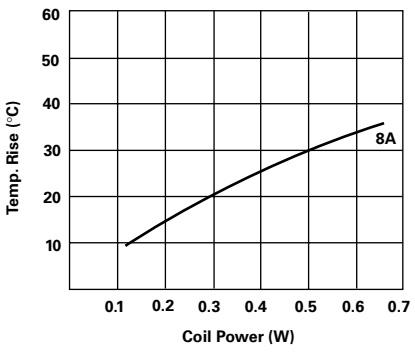


PC Board Layout (Bottom View)

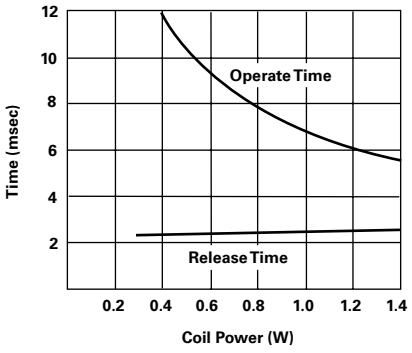


Reference Data

Coil Temperature Rise



Operate Time



Life Expectancy