

# **OUDH**series

# 10 Amp Miniature, Sealed PC Board Relay

Appliances, HVAC, Office Machines.

OUDH

**Must Operate** 

Voltage

(VDC)

2.25

4.50

6.75

9.00

18.00

36.00

Must Release

Voltage

(VDC)

0.30

0.60 0.90

1.20

2 40

4.80

Coil Resistance

(ohms) ± 10%

80

180

320

1.280

3.500

**A**\ UL File No. E58304 (S) CSA File No. LR48471

Nominal

Current

(mA)

150.0

75.0

50.0

37.5

20.9

Coil Data @ 20°C

Rated Coil

Voltage

(VDC)

6 9

12

24

48

#### **Features**

- Low profile miniature power relay
- High density available on PC board due to small size
- 450mW coil available.
- · Meets 2kV dielectric between coil and contacts
- Meets 5kV surge voltage
- Immersion cleanable, sealed version available.

#### Contact Data @ 20°C

Arrangements: 1 Form A (SPST-NO), 1 Form C (SPDT).

Material: Ag Alloy

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: 10A @ 120VAC resistive,

10A @ 28VDC resistive, 1/4 HP @ 120VAC.

3A @ 120VAC inductive (cosø= 0.4), 3A @ 28VDC inductive (L/R= 7msec).

Max. Switched Voltage: AC: 240V DC: 110V

Max. Switched Current: 10A Max. Switched Power: 1,200VA, 300W

#### **Operate Data**

Must Operate Voltage: 75% of nominal voltage or less. Must Release Voltage: 10% of nominal voltage or more.

Operate Time: 10 ms max. Release Time: 5 ms max

#### Initial Dielectric Strength

Between Open Contacts: 750VAC 50/60 Hz. (1 minute) Between Coil and Contacts: 2,000VAC 50/60 Hz. (1 minute) Surge Voltage Between Coil and Contacts: 5,000V (1.2/50µs).

# **Initial Insulation Resistance**

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

#### Coil Data

Voltage: 3 to 48VDC.

Nominal Power: 450mW except 48VDC coil (660mW) Coil Temperature Rise: 60°C max., at rated coil voltage

Max. Coil Power: 130% of nominal

**Duty Cycle:** Continuous

### **Environmental Data**

Temperature Range:

Operating: -30°C to +60°C (no water condensation and no water drop.)

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

#### **Mechanical Data**

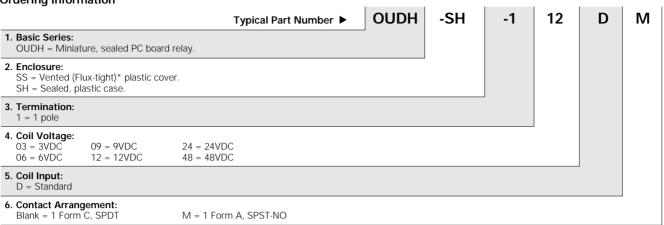
Termination: Printed circuit terminals Enclosure (94V-0 Flammability Ratings):

OUDH-SS: Vented (Flux-tight), plastic cover. OUDH-SH: Sealed, plastic case.

Weight: 10g approximately.

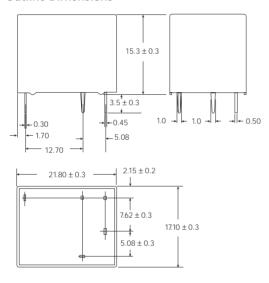
## DEG

## **Ordering Information**



<sup>\*</sup> Not suitable for immersion cleaning processes.

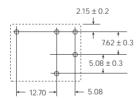
### **Outline Dimensions**



## Wiring Diagram (Bottom View)

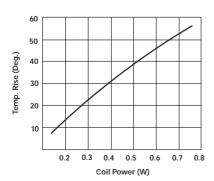


## PC Board Layout (Bottom View)

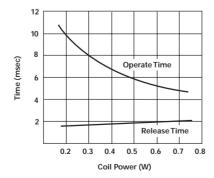


#### Reference Data

## **Coil Temperature Rise**



#### Operate Time



## Life Expectancy

