

## 812H/812BH



## »» Features

- Miniature PCB Power Relays 10A 250VAC.
- High CTI 250 and New Glow Wire Approved material.
- UL Insulation Class F.
- VDE 0435, UL/CUL, TUV, CSA approved.
- Comply with RoHS-Directive 2002/95/EC.

## »» Type List

## ◆ 812H

| Terminal style | Contact form | UL Insulation system approval | Designation (provided with) |                  |                      |
|----------------|--------------|-------------------------------|-----------------------------|------------------|----------------------|
|                |              |                               | Flux tight                  | Sealed type      | Sealed type washable |
| PCB terminal   | 1C<br>(SPDT) | -----                         | 812H-1C-C                   | 812H-1C-V        | 812H-1C-S            |
|                |              | F                             | 812H-1C-C FXXVDC            | 812H-1C-V FXXVDC | 812H-1C-S FXXVDC     |
|                | 1A<br>(SPNO) | -----                         | 812H-1A-C                   | 812H-1A-V        | 812H-1A-S            |
|                |              | F                             | 812H-1A-C FXXVDC            | 812H-1A-V FXXVDC | 812H-1A-S FXXVDC     |
|                | 1B<br>(SPNC) | -----                         | 812H-1B-C                   | 812H-1B-V        | 812H-1B-S            |
|                |              | F                             | 812H-1B-C FXXVDC            | 812H-1B-V FXXVDC | 812H-1B-S FXXVDC     |

## ◆ 812BH

| Terminal style | Contact form | UL Insulation system approval | Designation (provided with) |                   |                      |
|----------------|--------------|-------------------------------|-----------------------------|-------------------|----------------------|
|                |              |                               | Flux tight                  | Sealed type       | Sealed type washable |
| PCB terminal   | 1C<br>(SPDT) | -----                         | 812BH-1C-C                  | 812BH-1C-V        | 812BH-1C-S           |
|                |              | F                             | 812BH-1C-C FXXVDC           | 812BH-1C-V FXXVDC | 812BH-1C-S FXXVDC    |
|                | 1A<br>(SPNO) | -----                         | 812BH-1A-C                  | 812BH-1A-V        | 812BH-1A-S           |
|                |              | F                             | 812BH-1A-C FXXVDC           | 812BH-1A-V FXXVDC | 812BH-1A-S FXXVDC    |

## »» Ordering Information

812 BH - 1A - C E FXXVDC  
 1 2 3 4 5 6

- |   |   |
|---|---|
| <p>1. 812 -- Basic series designation</p> <p>2. BH -- High power type with insulation barrier<br/>H -- High power type</p> <p>3. 1A -- Single pole normally open<br/>1B -- Single pole normally closed<br/>1C -- Single pole double throw</p> | <p>4. C -- Flux tight<br/>V -- Sealed type<br/>S -- Sealed type washable</p> <p>5. Blank -- Standard type<br/>E -- CTI 250V</p> <p>6. Blank -- Standard type<br/>F -- Class F</p> |
|---|---|

## »» Contact Rating

|                |  |
|----------------|--|
| Resistive load | NO: 10A/240VAC 12A/120VAC NC: 8A/240VAC 10A/120VAC |
|----------------|--|

## »» Coil Rating (DC)

| Rated voltage (V) | Rated current $\pm 10\%$ at 23°C (mA) | Coil resistance $\pm 10\%$ at 23°C ( $\Omega$ ) | Max. continuous voltage at 85°C | Pick up voltage(Max) at 23°C | Drop out voltage(Min) at 23°C | Power consumption at rated voltage |
|-------------------|---------------------------------------|---|---------------------------------|------------------------------|-------------------------------|------------------------------------|
| 3                 | 120                                   | 25  | 160 % of rated voltage          | 75 % of rated voltage        | 10 % of rated voltage         | approx. 0.36W                      |
| 5                 | 73                                    | 69  |                                 |                              |                               |                                    |
| 6                 | 60                                    | 100   |                                 |                              |                               |                                    |
| 9                 | 40                                    | 225   |                                 |                              |                               |                                    |
| 12                | 30                                    | 400   |                                 |                              |                               |                                    |
| 18                | 20                                    | 900   |                                 |                              |                               |                                    |
| 24                | 15                                    | 1600  |                                 |                              |                               |                                    |
| 48                | 7.5                                   | 6400  |                                 |                              |                               |                                    |

## »» Specification

|                                      |                              |  |
|--------------------------------------|------------------------------|--|
| Contact material                     | AgSnO alloy                  |  |
| Contact resistance <sup>(1)</sup>    | 100m $\Omega$ Max.           |  |
| Operate time <sup>(1)</sup>          | 15ms Max.                    |  |
| Release time <sup>(1)</sup>          | 5ms Max.                     |  |
| Insulation resistance <sup>(1)</sup> | 100M $\Omega$ Min. (DC 500V) |  |
| Dielectric strength <sup>(1)</sup>   | Between open contact         | : AC 750V , 50/60Hz 1 min. (for 812H)<br>: AC 1000V, 50/60Hz 1 min. (for 812BH)  |
|                                      | Between contact and coil     | : AC 1500V , 50/60Hz 1 min. (for 812H)<br>: AC 2000V, 50/60Hz 1 min. (for 812BH) |
| Vibration resistance                 | Operating extremes           | 10~50Hz , amplitude 1.0 mm   |
|                                      | Damage limits                | 10~50Hz , amplitude 1.0 mm   |
| Shock resistance                     | Operating extremes           | 10G  |
|                                      | Damage limits                | 100G   |
| Life expectancy                      | Mechanical                   | 10,000,000 operations<br>(frequency 18,000 operations/hr)                        |
|                                      | Electrical                   | 100,000 operations<br>(frequency 900 operations/hr)                              |
| Operating ambient temperature        | -40~+85°C (no freezing)      |  |
| Weight                               | Approx. 9 g                  |  |

Note : (1) initial value

## »» Safety Approval

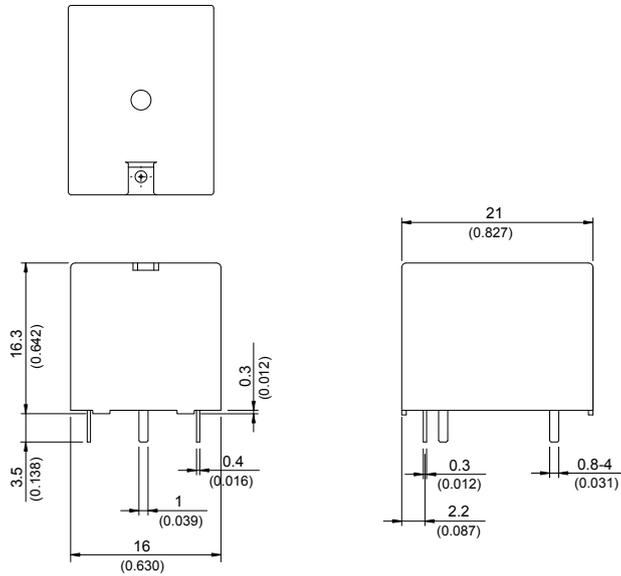
| Certified | UL / CUL | CSA     | VDE    | TUV       |
|-----------|----------|---------|--------|-----------|
| File No.  | E88991   | 1129068 | 122905 | R50041911 |

# 812H/812BH

## »» Safety Approval Rating

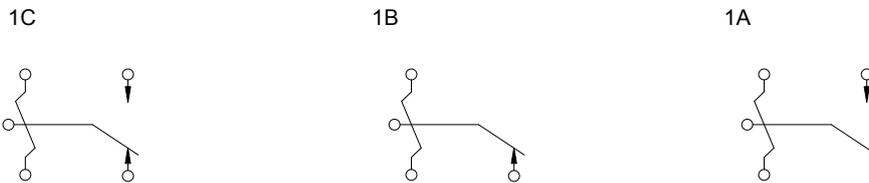
| UL / CUL, CSA |              | VDE                               | TUV                                 |
|---------------|--------------|-----------------------------------|-------------------------------------|
| NO            | NC           |                                   |                                     |
| 20A 125VAC    | 20A 125VAC   | 12A 250VAC T85<br>10A 250VAC T105 | 7A 250VAC<br>10A 125VAC<br>7A 30VDC |
| 16A 277VAC    | 12A 277VAC   |                                   |                                     |
| 1/2 HP 125VAC | 1/2HP 125VAC |                                   |                                     |
| 1HP 250VAC    | 1HP 250VAC   |                                   |                                     |
| 10A 30VDC     | 7A 30VDC     |                                   |                                     |
| TV 8          |              |                                   |                                     |

## »» Outline Dimensions



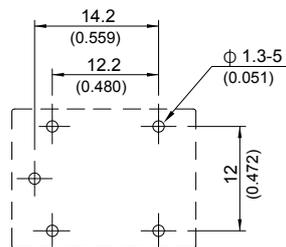
## »» Wiring Diagram

BOTTOM VIEW



## »» PC Board Layout

BOTTOM VIEW



## »» Engineering Data

