BALSEAL

# BSL Series PCB Mount Solid State Relays

## PCB mounting type




- AC output uses bidirectional thyristor output, zero-voltage turn-on, zero-current turn-off.
- DC output uses bipolar transistor output, with low on-state voltage, fast switching speed, and strong anti-interference capability.
- Input signals are compatible with TTO and CMOS digital logic circuits.
- Input-output isolation withstand voltage of 2500V.
- Optical isolation between input and output circuits.
- Single-row through-hole board soldering mounting, standard size.

RoHS CE

## Model listing

### Valid product listings

| BSL | 10 | 220 | D | 03 | XXX |
|---|---|---|---|---|---|
| Series code | Rated load current<br>05: 5A<br>10: 10A | Rated load voltage<br>220: 220VAC<br>380: 380VAC | Input signal type<br>D:DC | input voltage<br>10: 3-14VDC<br>30:3-32VDC | other |

### Input parameters

| | | |
|---|---|---|
| Input voltage range | DC 3~32VDC | DC 3~14VDC |
| Maximum input current | 6-35mA | 6-35mA |
| Ensure the voltage is on. | 3.5VDC | 3.5VDC |
| Ensure shutdown voltage | 1.5VDC | 1.5VDC |

### Output parameters

| | |
|---|---|
| Rated load voltage | AC 220V / AC 380V |
| Rated load current | 5A/10A |
| Transient peak withstand voltage | 800VAC |
| Off-state leakage current | ≤1.5mA |
| On-state pressure drop | ≤1.5V |
| On-off time | ≤10ms |

### Other parameters

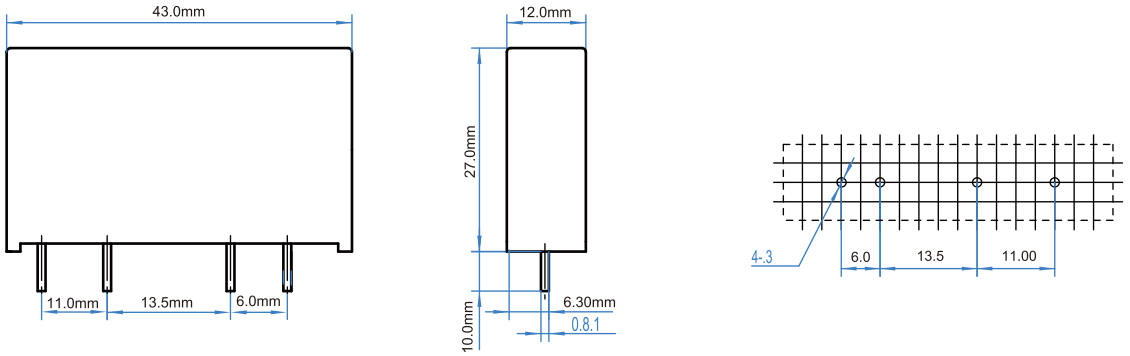
| | |
|---|---|
| Medium pressure resistance | ≥2500VAC |
| Insulation voltage | 4000V |
| Safety regulations for casing materials | UL94-V0 |
| Substrate material | aluminum |
| working temperature | -20℃~70℃ |
| storage temperature | -30℃~125℃ |
| Maximum working humidity | 85% No condensation |
| Installation method | PCB welding type |
| sizeL-W-H(mm) | 43*12*27 |
| Certification | CE |

### Precautions:

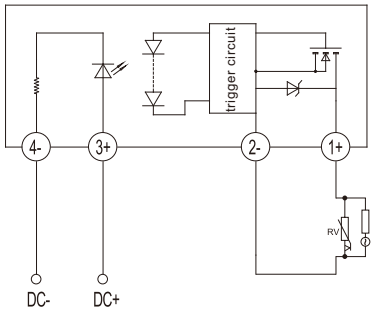
(A) When soldering relays, the soldering time should not exceed 10 seconds at 260°C and 5 seconds at 350°C.
(B) When wiring the relay, ensure the input polarity is correct to avoid damaging the relay.
(C) The heat sink is built-in. The heat generated by the relay's own power consumption needs to be dissipated through the casing. If the heat dissipation around the relay is poor, the output load current should be derated.
(D) If the transient voltage across the relay exceeds the nominal value, a varistor should be connected in parallel with the relay's output to prevent the relay from breaking down.

For more information, please contact your distributor.

## **BSL** Installation dimensions




## **BSL circuit diagram**




## BSL **temperature curve**

