SRB-Series



® SANYOL

Miniature Power Relay

Features

- Small size (20.5x7x15.1mm) for high density PCB mounting.
- 5A contact switching capability.
- High breakdown voltage: 4000V (between coil and contact)
- Satisfy IEC60335-1 product is available.
- Satisfy IEC60079-15 product is available.

Safety Approval

UL , C-UL File No : E190598 TUV File No : R50138320 VDE File No : 40033402 CQC File No : CQC02001002126

Contact Capacity

| e entact e apacity | | |
|--|-----------|--|
| Model | SRB | |
| Nominal switching capacity (res. load) | 5A 277VAC | |
| (iso: ioud) | 3A 277VAC | |
| Max. switching current | 5A | |
| Max. switching voltage | 277VAC | |
| Max. switching power | 1,385VA | |
| L | | |

Characteristic Data

| | <u> </u> | | | | |
|---------------------------------|---|---|--|--|--|
| Contact material | Silver alloy | | | | |
| Initial contact resistance | 50mΩ Max.(1A 6VDC) | | | | |
| Operate time (at nominal volt.) | 20msec. Max.(no diode) | | | | |
| Release time (at nominal volt.) | 10msec. Max.(no diode) | | | | |
| Initial insulation resistance | 1,000MΩ Min.(DC500V) | | | | |
| Initial dielectric strength | Between open contacts: AC750V, 50/60Hz 1min. | | | | |
| | Between coilandcontact: AC4,000V, 50/60Hz 1min. | | | | |
| Vibration resistance | Function | 10 ~ 55Hz at double amplitude of 1.5 mn | | | |
| | Destructive | 10 ~ 55Hz atdouble amplitude of 1.5 mm | | | |
| Shock resistance | Function | 10G Min. | | | |
| Shock resistance | Destructive | 100G Min. | | | |
| Endurance (operations) | Mechanical (at 10,800ops./h) | 10,000,000(at room temperature) | | | |
| | Electrical (at 360ops./h) | 100,000(at room temperature) | | | |
| Ambient temperature | -40°C ~ +105°C(no condensation) | | | | |
| Unit weight | Approx. 3.9g | | | | |

Coil Data (at 20°C)

| Nominal voltage (VDC) | Nominal operating current 10%(mA) | coil resistance ± 10% (Ω) | Max. allowable voltage | Pick-up voltage (Max.) | Drop-out voltage (Min.) | Nominal operating power |
|-----------------------------|--|---------------------------------|--------------------------------|-------------------------------|-------------------------------|-------------------------------|
| 5 | 40.00 | 125 | | | | |
| 6 | 33.33 | 180 | | | | |
| 9 | 22.22 | 405 | 130 % of nominal voltage | 75 % of nominal voltage | 5 % of nominal voltage | Approx. |
| 12 | 16.67 | 720 | | | | 0.20W |
| 18 | 11.11 | 1,620 | | | | |
| 24 | 8.57 | 2,800 | | | | |

CoilData (at 20°C)

| Nominal voltage (VDC) | Nominal operating current 10%(mA) | coil resistance ± 10% (Ω) | Max. allowable voltage | Pick-up voltage (Max.) | Drop-out voltage (Min.) | Nominal opersting power |
|-----------------------------|--|---------------------------------|--------------------------------|-------------------------------|-------------------------------|-------------------------------|
| 5 | 72.00 | 69 | 130 % of nominal voltage | 75 % of nominal voltage | 5 % of nominal voltage | 0.36W |
| 6 | 60.00 | 100 | | | | |
| 9 | 40.00 | 225 | | | | |
| 12 | 30.00 | 400 | | | | |
| 18 | 20.00 | 900 | | | | |
| 24 | 15.00 | 1,600 | 1 | | | |

Safety Approval Ratings

(Note:More detail of approval ratings, please refer to the safety certification)

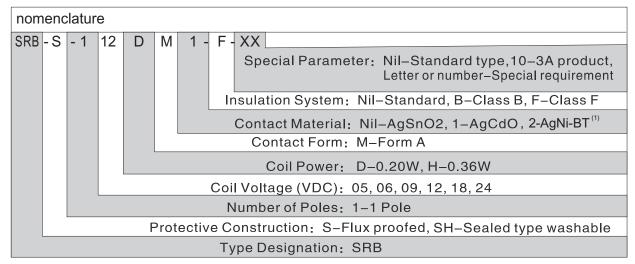
| Approval | CQC | TUV | VDE | UL/CUL |
|---------------------|------------------------|------------------------|------------------------|---|
| File No. | CQC07001019820 | R50138320 | 40033402 | E190598 |
| Approved Ratings | 5A 277VAC 3A 277VAC | 5A 277VAC 3A 277VAC | 3A 277VAC 5A 277VAC | 5A 277VAC , Resistive 3A 277VAC , Resistive 3A 30VDC , Resistive 5A 250VAC , Resistive 3A 250VAC , Resistive 5A 250VAC , General Use 3A 250VAC , General Use 1/ 8HP 240VAC TV-3, 120VAC |

(1) The above-mentioned unspecified temperature ratings, means that the ambient temperature is room temperature.

(2) Only some typical ratings are listed above. Each rating's test condition is different, so the electrical endurance will be different. If more details are required, please contact us.

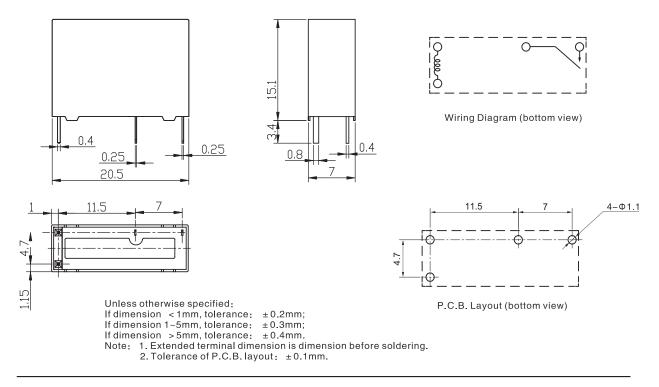
(3) For sealed type testing, please open the ventilation hole of case before test.

Ordering Information



Note : (1)AgNi-BT is compound contact of silver and copper, so the head of the contact is AgNi, and the tail of the contact is Cu.

Outline Dimensions, Wiring Diagram, P.C.Board Layout(unit:mm)



Typical Applications

- Telecommunication equipment
- Office equipment
- Safety equipment
- Home appliances such as air conditioner, microwave oven

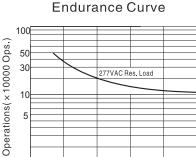
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Characteristic Curves Coil Temp. Rise Max. Switching Power 90 5.0 80 40 3A 0A Contact Current(A) 室温 AC阻性负载 Temp. Rise (K) 5A 3A 3.0 70 60 _70°C 1.0 0.7 50

0.5

0.3

0 20 30



2

Contact Current(A)

3

4

5

Disclaimer:

40

30

100

125

⁰ Percentage of Nominal Coil Voltage

150

175

This datasheet is the customers' reference. All the specification are subject to change without notice.

We could not evaluate all the performance and all the parameters for every possible application. Thus the user should in a right position to choose the suitable product for their own application. For sealed relays after installation and cleaning, please open the vent hole on the case before use. If there is any query, please contact Sanyou for the technica service. However it is the user's responsibility to determine which product should be used only.

DC阻性负载

100 200 300

50

Contact Voltage(V)

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