



## Miniature Power Relay

## SRD

### Features

- Low coil power consumption.
- Micro-miniature relay, standard PCB terminals.
- IEC60335-1 compliant product is available.
- IEC60079-15 compliant product is available.

### Safety certificate

UL, c-UL (File No.): E190598

TUV (File No.): R50142424

CQC (File No.): CQC02001002126, CQC10002050459, CQC21002306489

VDE (File No.): 40034479

## Contact Data

Type	SRD
Rated load (Resistive load)	10A 250VAC
Max. switching current	15A
Max. switching voltage	250VAC
Max. switching power	2,500VA
Min. switching load	6V 1A

## Characteristics

Contact material	Silver alloy	
Contact resistance	100mΩ Max. (at 1A 6VDC)	
Operate time (at rated coil voltage)	8ms Max. ( No diode)	
Release time	5ms Max. ( No diode)	
Insulation resistance	Min. 1,000MΩ (at 500VDC)	
Dielectric strength	Between open contacts: 750VAC, 50/60Hz for 1min.	
	Between coil and contact: 1,500VAC, 50/60Hz for 1min.	
Vibration resistance	Destructive	10 ~ 55Hz, at double amplitude of 1.5mm
	Functional	10 ~ 55Hz, at double amplitude of 1.5mm
Shock resistance	Destructive	100G Min.
	Functional	10G Min.
Endurance	Mechanical endurance (10,800ops./h )	10,000,000(at room temperature)
	Electrical endurance (360ops./h)	100,000(at room temperature)
Ambient temperature	-40°C ~ +85°C ( No condensation) For ambient temperature is 105°C, please contact Sanyou	
Weight	Approx. 8.0g	

## Coil Data (at 20°C)

Nominal voltage (VDC)	Nominal operating current $\pm 10\%$ (mA)	Coil resistance $\pm 10\%$ ( $\Omega$ )	Max. allowable voltage	Operate voltage (Max.)	Release voltage (Min.)	Nominal operating power
3	120.00	25	130% of nominal voltage	75% of nominal voltage	10% of nominal voltage	0.36W
5	71.42	70				
6	60.00	100				
9	40.00	225				
12	30.00	400				
15	24.00	625				
18	20.00	900				
24	15.00	1,600				
48	7.50	6,400				
60	6.00	10,000				

The data shown above are initial values. Do not apply maximum allowable voltage on coil for more than 10 minutes to avoid overheating of the coil.

## Safety Certificate Ratings (Note: More details of approved ratings, please refer to the safety certificates)

Certificates	CQC	TUV	VDE	UL/CUL
File No.	CQC02001002126 CQC10002050459 CQC21002306489	R50142424	40034479	E190598
Approved Ratings	10A 250VAC 7A 250VAC 5A 240VAC	10A 250VAC 7A 250VAC 7A 28VDC	10A 250 VAC 7A 250 VAC	15A 125VAC, Resistive 10A 250VAC, Resistive 7A 250VAC, General use 1/3 HP 250VAC, FLA 5A, LRA 10A, 120/240VAC TV-5, 120VAC.

- (1) All values unspecified are at room temperature.
- (2) Only typical ratings are listed above and the endurance differ in each load. Other specific load information are available upon request.
- (3) For sealed type testing, please open the ventilation hole in the case before test.

## Ordering Information

### Nomenclature

SRD -S -1 12 D M 6 -F -XX

Special Parameter:  
 Nil-Standard type  
 Letter or number-Special requirement

Insulation System :  
 Nil-Standard  
 B - Class B  
 F - Class F

Contact Material :  
 Nil & 2-AgSnO<sub>2</sub>  
 4 - 3 Compounds AgSnO<sub>2</sub> (Form C)  
 5 - Cu plated with La  
 6 - AgNi  
 7 - AgNi & AgSnO<sub>2</sub>  
 8- 3 Compounds AgNi (Form C)

Contact Arrangement:  
 Nil-Form C  
 B-Form B  
 M-Form A

Coil Power:  
 D-0.36W

Rated Coil Voltage(VDC):  
 03, 05, 06, 09, 12, 15, 18, 24, 48, 60

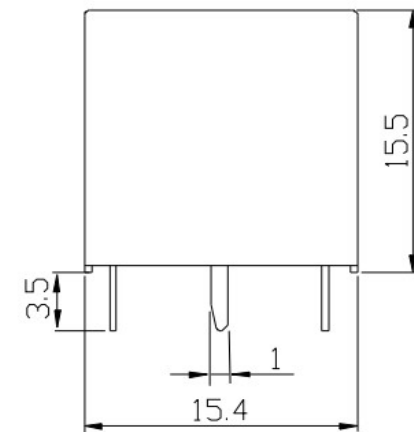
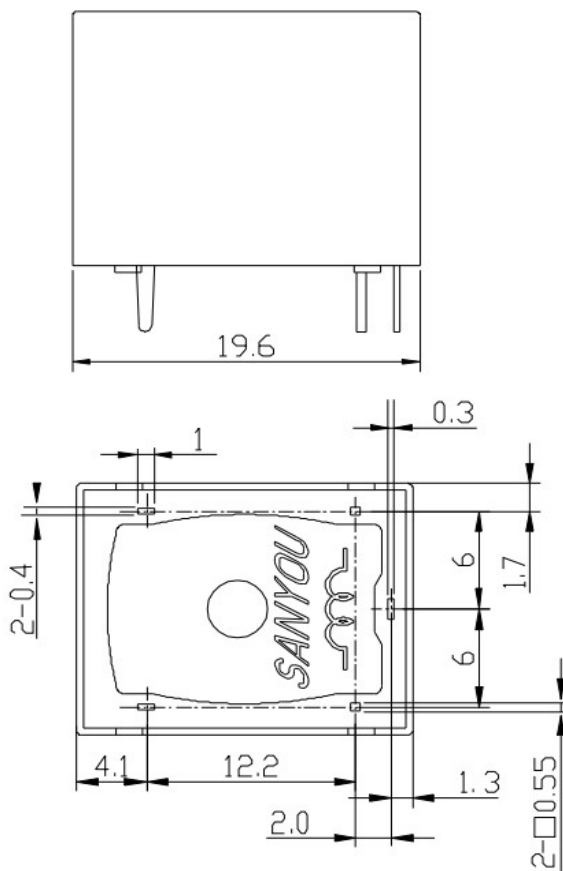
Number of Poles:  
 1-1Pole

Protective Construction  
 S - Flux-proof  
 SH- Sealed type washable

Type: SRD

- (1) Flux-proof relays can not be used in the environment with pollutants like H<sub>2</sub>S, SO<sub>2</sub>, NO<sub>2</sub>, dust, etc.
- (2) Water cleaning or surface process is not suggested after the flux-proof relays are assembled on PCB.
- (3) Customized special suffix is available after being evaluated by Sanyou.
- (4) The "VDE" printing on the cover are only available for products with the suffixes of "D" "D2" "D3" "D6" "DM" "DM6" .

## Outline dimension, wiring diagram, PCB layout (Unit: mm)



In case of no tolerance shown on outline dimension

If dimension < 1 mm, tolerance:  $\pm 0.2$ mm

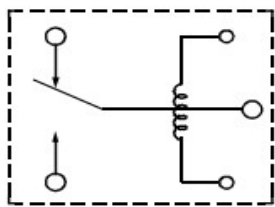
If dimension 1~5mm, tolerance:  $\pm 0.3$ mm

If dimension > 5mm, tolerance:  $\pm 0.4$ mm

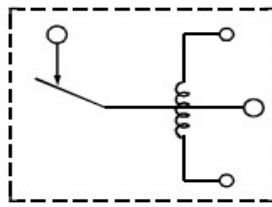
Note:

1.The dimension of pin is the size before tinning

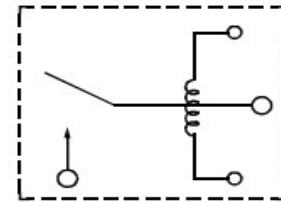
2.Tolerance of PCB layout:  $\pm 0.1$  mm.



1c

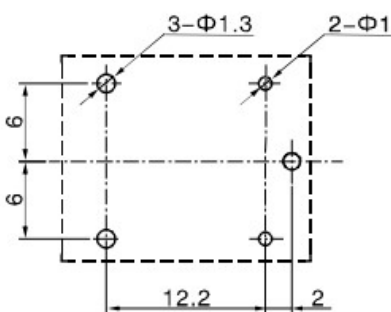


1b

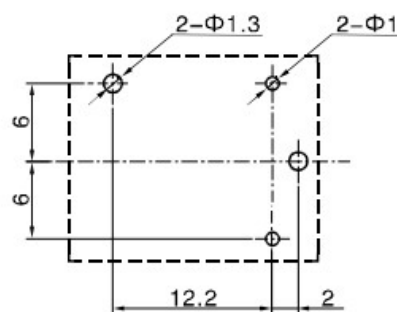


1a

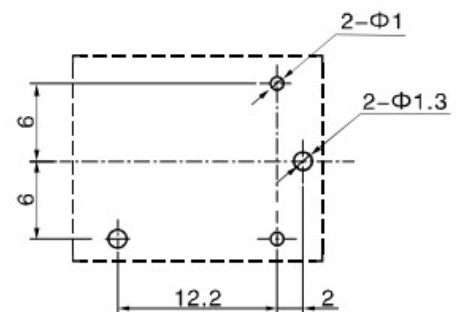
Wiring Diagram (bottom view)



1c



1b



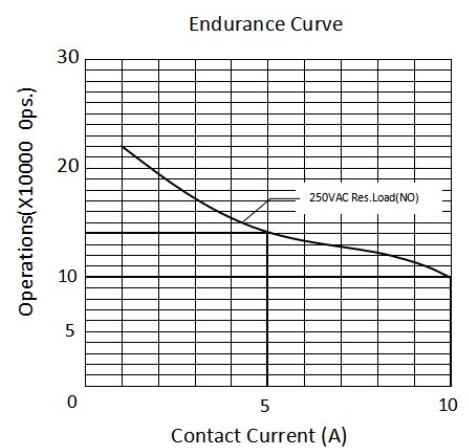
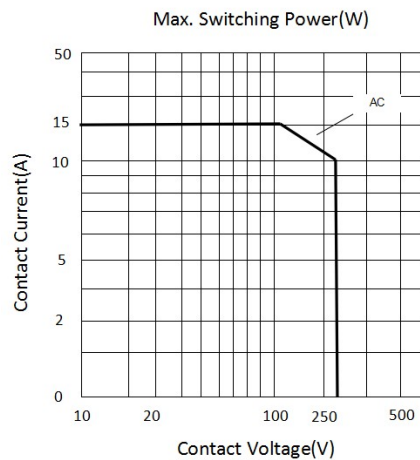
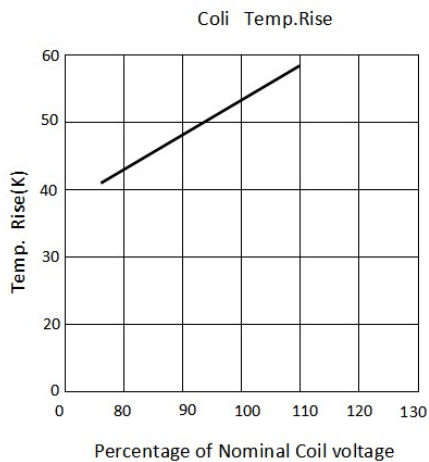
1a

PCB Layout (bottom view)

## Typical Applications

- Home appliances: air conditioner, heater, etc.
- Vending machine.
- Office equipment: computer, fax machine, etc.
- Electric controlled window, car antenna, door lock, etc.

## Characteristic Curves



Note:

- (1) Test conditions: room temperature, flux-proof product, resistive load, 1s on, 9s off.
- (2) The above curves are for reference only, and the final result is subject to the experiment.

### Disclaimer:

The specification is for reference only. Specifications are subject to change without prior notice.

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