

### Features:

- High contact capability: 12A switching capability
- Low coil power consumption
- Micro-miniature relay, standard PCB terminals
- Compliance EU RoHS and the requirement of white home appliances
- Compliant with IEC60335-1(GWT) & CTI250V.
- IEC60079-15 compliant product is available

### Typical applications:

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

### Approvals

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

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

VDE (File No.): 40034479

### Contact Data

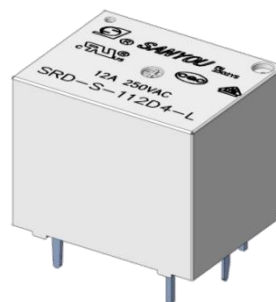
Contact arrangement	1form C( CO)or 1form A( NO)
Contact resistance	100mΩ Max.(at 1A 6VDC)
Rated voltage	250VAC
Max.switching voltage	277VAC
Rated current	12A
Min. recommended contact load	1A, 6VDC
Breaking capacity max.	3324VA
Contact material	AgNi, AgSnO <sub>2</sub>
Frequency of operation	360 ops./h
Operate/release time max.	8ms/5ms
Electrical endurance	See electrical endurance graph

### Contact ratings

Type	Contact	Load	Cycles
<b>IEC 61810</b>			
SRD(I)-L	A/C(NO)	12A,250VAC,cos φ=1,105℃	1X10 <sup>5</sup>
<b>UL 60947-4-1</b>			
SRD(I)-L	A/C(NO)	12A,250VAC,cos φ=1,105℃	1X10 <sup>5</sup>
SRD(I)-L	A/C(NO)	1/2 hp, 250/120 VAC, 85℃	3X10 <sup>4</sup>
SRD(I)-L	A/C(NO)	TV-8, 250/120 VAC, 85℃	2.5X10 <sup>4</sup>
<b>GB/T 21711.1-2023</b>			
SRD(I)-L	A/C(NO)	12A,250VAC,105℃	2X10 <sup>4</sup>
<b>EN 60730-1</b>			
SRD(I)-L	A/C(NO)	12A,250VAC,105℃	1X10 <sup>5</sup>
Mechanical endurance			≥1X10 <sup>7</sup>

### Coil Data

Coil voltage range:	5 to 60VDC
Operative range, IEC 61810	2
Coil insulation system according UL	Class F



### Coil Data(continued)

Coil versions, DC coil

Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω (1±10%)	Rated coil powers mW
5	≤3.75	≥0.5	70	360
6	≤4.5	≥0.6	100	360
9	≤6.75	≥0.9	225	360
12	≤9	≥1.2	400	360
15	≤11.25	≥1.5	625	360
18	≤13.5	≥1.8	900	360
24	≤18	≥2.4	1600	360
48	≤36	≥4.8	6400	360
60	≤45	≥6	10000	360

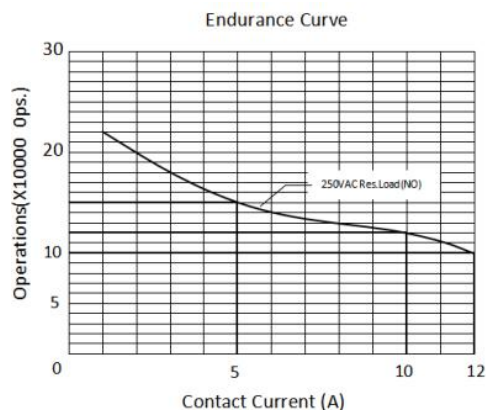
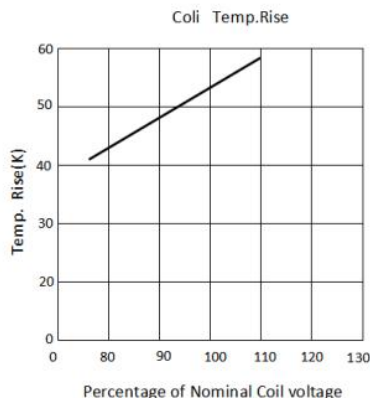
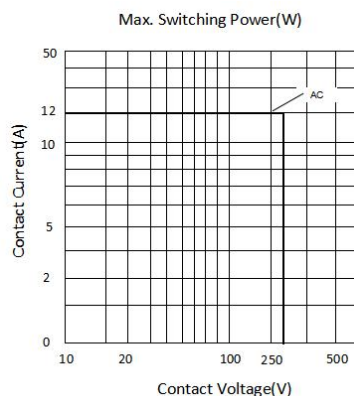
All figures are given for coil without pre-energization, at ambient temperature 20℃

### Insulation Data

Initial dielectric strength	750VAC
between open contacts	
between contact and coil	SRD-L: 1500VAC SRDI-L: 2500VAC
Clearance/Creepage	
between contact and coil (Clearance)	≥1.5mm(actual)
between contact and coil (Creepage)	≥3.0mm(actual)
Material group of insulation parts	IIIa
Tracking index of relay	PTI 175V/PTI 250V

### Other Data

Material compliance: EU RoHS/ELV, China RoHS, REACH	
Ambient temperature	-40℃ to +105℃
Category of environmental protection	
IEC 61810	RTII - flux proof RTIII - Sealed type washable
Weight	Approx. 8.0g
Resistance to soldering heat THT (IEC 60068-2-20)	260℃/5s
Packaging/unit	tube, tray

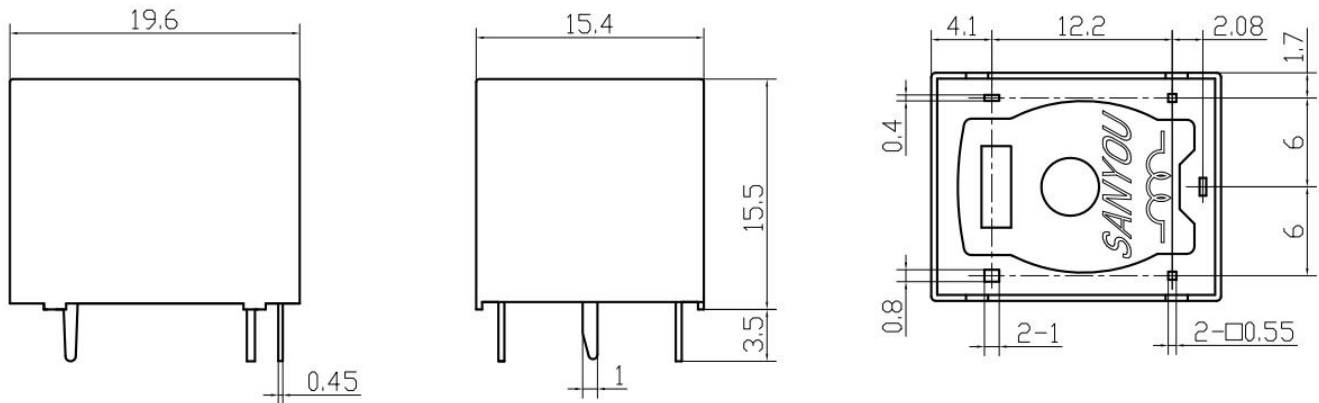


Note:

(1)Test conditions: room temperature, flux-proof product, resistive load, 1s on, 9s off.

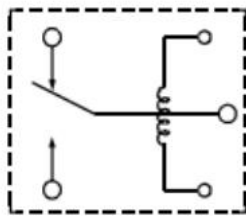
(2)The above curves are for reference only, and the final result is subject to the experiment.

### Dimensions

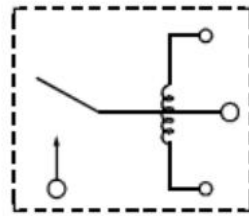


(bottom view)

### Wiring Diagrams (bottom view)

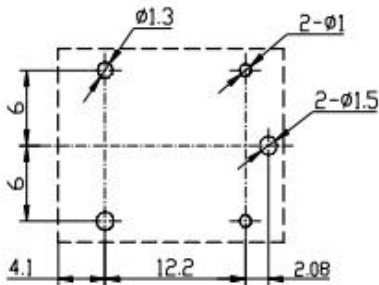


1c

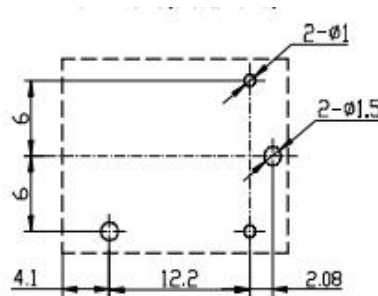


1a

### PCB Layouts (bottom view)



1c



1a

In case of no tolerance shown on outline dimension

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

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

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

Notes:

1.The dimension of pin is the size before tinning

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

**Product Code Structure**

SRD	-S	-1	12	D	M	2	-F	-L	XX	
										Special Parameter :
										Nil-Standard type
										Letter or number-Special requirement
										L-Low temperature rised type
										Insulation System :
										Nil - Standard
										B - Class B
										F - Class F
										Contact Material :
										2 & 4 - AgSnO <sub>2</sub>
										6 & 8 - AgNi
										7 - AgNi & AgSnO <sub>2</sub>
										Contact Form :
										Nil - Form C    M - Form A
										Coil power:
										D-0.36W
										Rated coil voltage(VDC):
										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/SRDI

(1) Flux-proofed 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) The customer special requirement express as special code after evaluating by Sanyou.

(4) Ex suffix stands for products compliant with IEC60079-15.

**Examples of Ordering Codes**

SRD-S-112DM2-L    relay SRD-L , Flux-proof , rated DC voltage 12V ,coil power 0.36W,1NO,and contact material AgSnO<sub>2</sub>.

SRD-S-112D4-L    relay SRD-L , Flux-proof , rated DC voltage 12V ,coil power 0.36W,1CO,and contact material AgSnO<sub>2</sub>.

**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.