Features:

- Miniature relay with high switching capability：50A.
- Contact form： Form A.
- Special type of 4000VAC dielectric strength and 6000V surge voltage (1.2/50μS) between coil and contact available.
- Satisfy IEC60335-1 /IEC60079-15 compliance product is available.

Typical applications:

- Charging Pile.
- Office equipment: computer, fax machine, etc.
- Electric controlled window, car, UPS, etc.

Approvals

UL, c-UL (File No.)：E190598
TUV (File No.)：R50143450
CQC (File No.)：CQC02001002109, CQC10002050461, CQC21002306488

Contact Data

Contact arrangement	1form A(NO)
Contact resistance	100mΩ Max.(at 1A 6VDC)
Rated voltage	250VAC
Max.switching voltage	277VAC
Rated current	50A
Min. recommended contact load	1A, 6VDC
Breaking capacity max.	13850VA
Contact material	$AgSnO_2$
Frequency of operation	360 ops./h
Operate/release time max.	15ms/10ms
Electrical endurance	$5x10^4$

Contact ratings

Type	Contact	Load	Cycles
IEC 61810			
SLD	A(NO)	50A,277VAC,85℃	$6X10^3$
SLD	A(NO)	Pick-up 20A，carrying 50A/60A，break 20A 277VAC,85℃	$5X10^4$
UL 60947-4-1			
SLD	A(NO)	50A,277VAC,85℃	$6X10^3$
SLD	A(NO)	Pick-up 20A，carrying 50A/60A，break 20A 277VAC,85℃	$5X10^4$
GB/T 21711.1-2023			
SLD	A(NO)	50A,277VAC,85℃	$6X10^3$
SLD	A(NO)	Pick-up 20A，carrying 50A/60A，break 20A 277VAC,85℃	$5X10^4$
Mechanical endurance			≥$1x10^6$

Coil Data

Coil voltage range:	5 to 110VDC
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	≥0.25	27	900
6	≤4.5	≥0.30	40	900
9	≤6.75	≥0.45	90	900
12	≤9	≥0.60	160	900
15	≤11.25	≥0.75	250	900
18	≤13.5	≥0.90	360	900
24	≤18	≥1.20	640	900
48	≤36	≥2.40	2560	900
110	≤82.5	≥5.50	13400	900

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

Insulation Data

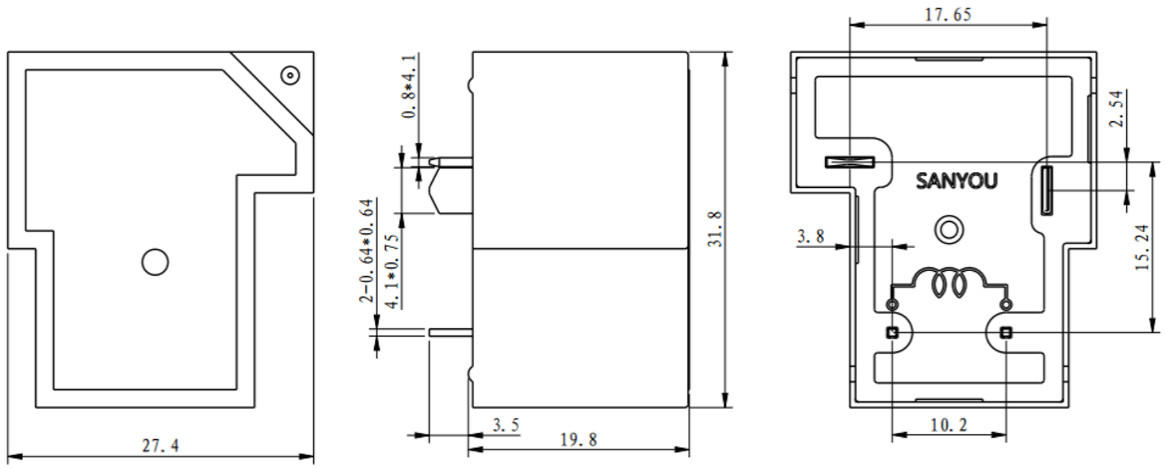
Initial dielectric strength	
between open contacts	1500VAC
between contact and coil	2500VAC
Clearance/Creepage	
between contact and coil（Clearance）	≥3.5mm(actual)
between contact and coil（Creepage）	≥5.0mm(actual)
Material group of insulation parts	IIIa
Tracking index of relay	PTI 175V/PTI 250V

Other Data

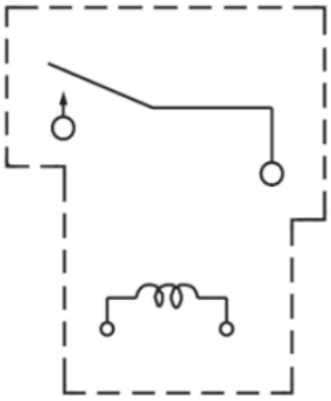
Material compliance: EU RoHS/ELV, China RoHS, REACH

Ambient temperature	-40℃ to +85℃
Category of environmental protection IEC 61810	RTII - flux proof RTIII - Sealed type washable
Weight	Approx. 24.0g
Resistance to soldering heat THT (IEC 60068-2-20)	260°C/5s
Packaging/unit	tube, tray

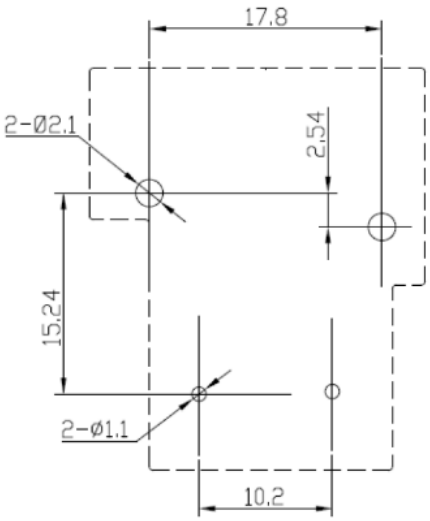
Dimensions



Wiring Diagrams



PCB Layouts（bottom view）



In case of no tolerance shown on outline dimension
If dimension < 1 mm, tolerance：±0.2mm
If dimension 1~5mm, tolerance：±0.3mm
If dimension > 5mm, tolerance：±0.4mm

Notes:
1.The dimension of pin is the size before tinning
2.Tolerance of PCB layout：±0.1 mm.

Product Code Structure

SLD	-S	-1	12	D	M		-F	-XX

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

Insulation System :
Nil - Class F
F - Class F

Contact Material :
Nil - $AgSnO_2$

Contact Arrangement:
M - Form A

Coil Power:
D - 0.9W

Rated Coil Voltage(VDC):
05, 06, 09, 12, 15, 18, 24, 48, 110

Number of Poles:
1 - 1Pole

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

Type: SLD

(1) Flux-proof relays can not be used in the environment with pollutants like H_2S, SO_2,NO_2, 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) C1 suffix stands for product in accordance to IEC60335-1(GWT) & CTI250V.
(5) Ex suffix stands for product compliant with IEC60079-15.

Examples of Ordering Codes

SLD-S-112DM relay SLD, Flux-proof, rated DC voltage 12V, coil power 0.9W, 1NO, and contact material $AgSnO_2$.

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.