

Features:

- Small size (20.5x7x15.1 mm) for high density PCB mounting.
- 10A contact switching capability.
- High breakdown voltage: 4000V (between coil and contact).
- IEC60335-1 compliant product is available.

Typical applications:

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

Approvals

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

CQC (File No.): CQC07001019820, CQC21002306490

TUV (File No.): R50138320

Contact Data

Contact arrangement	1 Form A(NO)
Rated voltage	250VAC/277VAC
Max.switching voltage	277VAC
Rated current	7A/10A
Min. recommended contact load	1A, 6VDC
Breaking capacity max.	2770VA
Contact material	AgNi, AgSnO ₂
Frequency of operation	360 ops./h
Operate/release time max.	10ms/5ms
Electrical endurance	See electrical endurance graph

Contact ratings

Type	Contact	Load	Cycles
IEC61810			
SRB	A(NO)	7A,250VAC/277VAC,105°C	6X10 ⁴
SRB	A(NO)	10A,250VAC/277VAC,105°C	1X10 ⁴
UL 60947-4-1			
SRB	A(NO)	7A,250VAC/277VAC,105°C	6X10 ⁴
SRB	A(NO)	10A,250VAC/277VAC,105°C	1X10 ⁴
GB/T 21711.1-2023			
SRB	A(NO)	7A,250VAC/277VAC,105°C	2X10 ⁴
SRB	A(NO)	10A,250VAC/277VAC,105°C	1X10 ⁴

Mechanical endurance ≥1x10⁷ operations

Coil Data

Coil voltage range:	5 to 24VDC
Operative range, IEC 61810	2
Coil insulation system according UL	Class F



Coil Data(continued)

Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω (1±10%)	Rated coil powers mW
5	≤3.75	≥0.25	125	200
6	≤4.5	≥0.3	180	200
9	≤6.75	≥0.45	405	200
12	≤9	≥0.6	720	200
18	≤13.5	≥0.9	1620	200
24	≤18	≥1.2	2880	200
5	≤3.75	≥0.25	69	360
6	≤4.5	≥0.3	100	360
9	≤6.75	≥0.45	225	360
12	≤9	≥0.6	400	360
18	≤13.5	≥0.9	900	360
24	≤18	≥1.2	1600	360

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

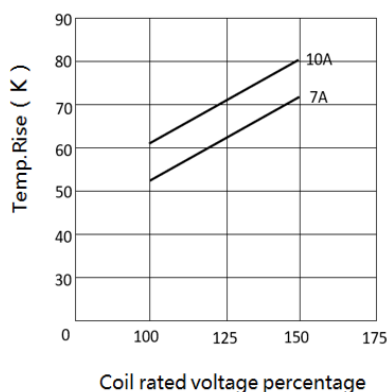
Insulation Data

Initial dielectric strength	
between open contacts	750VAC
between contact and coil	4000VAC
Clearance/Creepage	
between contact and coil (Clearance)	≥5.0mm (actual)
between contact and coil (Creepage)	≥5.0mm (actual)
Material group of insulation parts	IIIa
Tracking index of relay	PTI 175V/PTI 250V

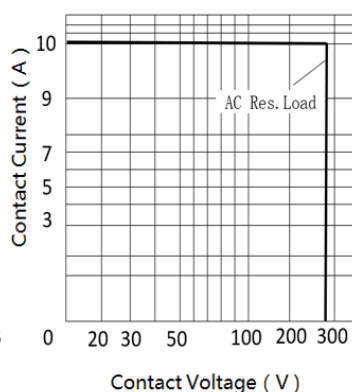
Other Data

Material compliance:	EU RoHS/ELV, China RoHS, REACH
Ambient temperature	-40°C to +105°C
Category of environmental protection	
IEC 61810	RTII - flux proof RTIII - Sealed type washable
Weight	Approx. 3.9g
Resistance to soldering heat THT (IEC 60068-2-20)	260°C/5s
Packaging/unit	tube, tray

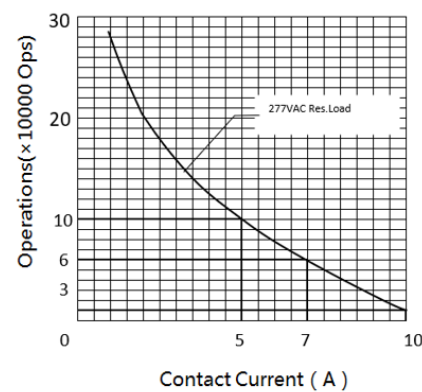
Coil Temp.Rise



Max.Switching Power



Endurance Curve

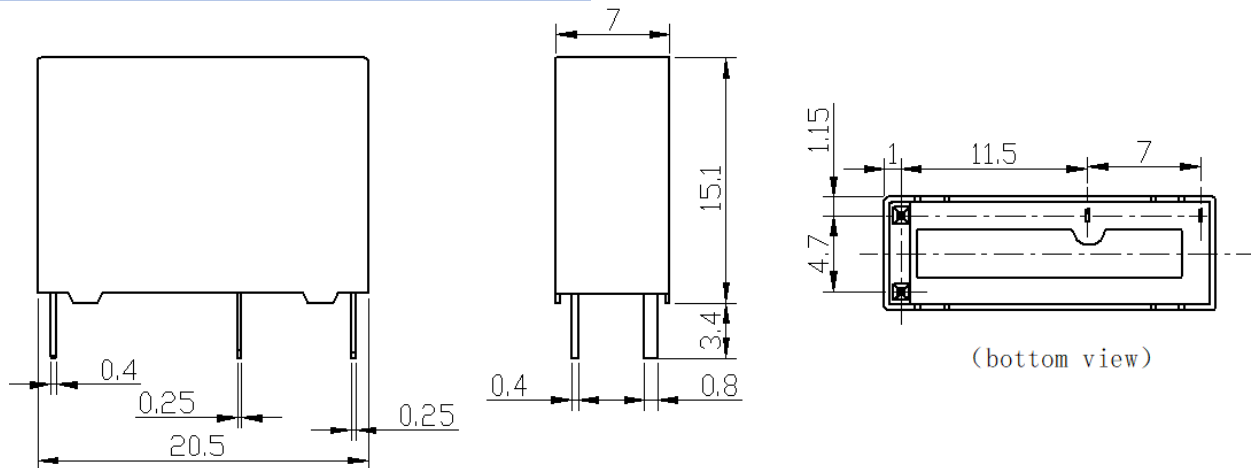


Note:

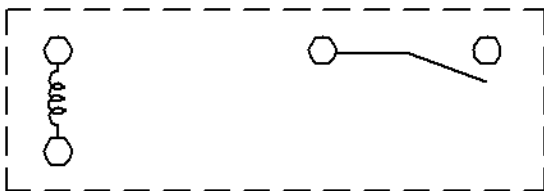
(1) Test conditions: room temperature, flux-proof product, resistive load, 1s on, 9s off.

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

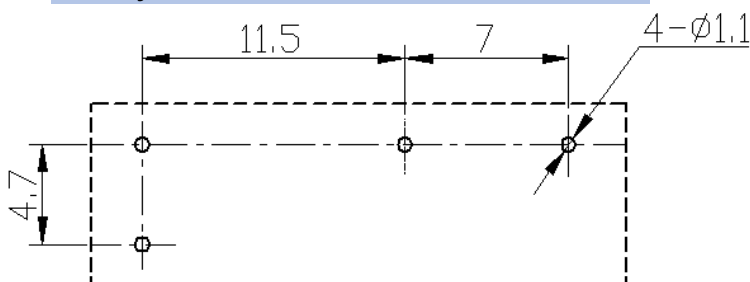
Dimensions



Wiring Diagrams (bottom view)



PCB Layouts (bottom view)



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

SRB	-S	-1	12	D	M	2	-G	-F	-XX	
										Special Parameter:
										Nil - Standard type
										Letter or number - Special requirement
										Insulation System :
										Nil - Standard
										F - Class F
										Contact capacity :
										Nil – Standard
										G – High load
										Contact Material :
										2 - AgNi
										3 - AgSnO ₂
										Contact Arrangement:
										M-Form A
										Coil Power:
										D - 0.2W
										H - 0.36W
										Rated Coil Voltage(VDC):
										05, 06, 09, 12, 18, 24
										Number of Poles:
										1-1Pole
										Protective Construction
										S - Flux-proof SH- Sealed type washable
										Type: SRB

- (1) Flux-proof relays can not be used in the environment with pollutants like H₂S, SO₂, NO₂, dust, etc.
- (2) Water cleaning or surface process is not suggested after the flux-proof relays are assembled on PCB.
- (3) Special requirements of customers (XX) shall be evaluated by our company and marked by characteristic symbols.
- (4) C1 suffix stands for product in accordance to IEC60335-1(GWT) & CTI250V.

Examples of Ordering Codes

SRB-S-112DM2-G relay SRB , Flux-proof , rated DC voltage 12V ,coil power 0.2W ,1NO,and contact material AgNi.

SRB-S-112HM3-G relay SRB , Flux-proof , rated DC voltage 12V ,coil power 0.36W ,1NO,and contact material AgSnO₂.

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.