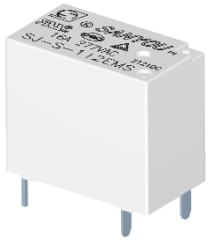
Features:

- Low coil power consumption.
- Micro-miniature relay, standard PCB terminals.
- Compliant with IEC60335-1&CTI250V
- IEC60079-15 compliant product is available.
- Suitable for high inrush current version(TV-8)

Safety certificate:

- 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
TUV (File No.)：R50142420
CQC (File No.)：CQC02001002114, CQC09002030583, CQC11002064518, CQC22002367720

Contact Data

Contact arrangement	1form A(NO)
Rated voltage	277VAC
Max.switching voltage	277VAC
Rated current	16A
Min. recommended contact load	1A, 6VDC
Breaking capacity max.	4432VA
Contact material	$AgSn0_2$
Frequency of operation	360 ops./h
Operate/release time max.	10ms/5ms
Electrical endurance	See electrical endurance graph

Contact ratings

Type	Contact	Load	Cycles
IEC 61810			
SJ	A(NO)	16A,277VAC,cos ϕ=1,85℃	$5X10^4$
UL 60947-4-1			
SJ	A(NO)	16A,277VAC,cos ϕ=1,85℃	$5X10^4$
SJ	A(NO)	TV-10, 120 VAC, 40℃	$2.5X10^4$
GB/T 21711.1-2023			
SJ	A(NO)	16A,277VAC,85℃	$2X10^4$
EN 60730-1			
SJ	A(NO)	16A,277VAC,85℃	$5X10^4$
Mechanical endurance			$≥1x10^7$

Coil Data

Coil voltage range:	5 to 24VDC
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	62.5	400
6	≤4.5	≥0.3	90	400
9	≤6.75	≥0.45	202.5	400
12	≤9	≥0.6	360	400
18	≤13.5	≥0.9	810	400
24	≤18	≥1.2	1440	400

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

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	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

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

Insulation Data

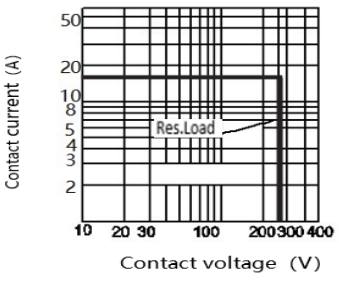
Initial dielectric strength	
between open contacts	1000VAC
between contact and coil	4000VAC
Clearance/Creepage	
between contact and coil（Clearance）	≥8.0mm(actual)
between contact and coil（Creepage）	≥8.0mm(actual)
Material group of insulation parts	IIIa
Tracking index of relay	PTI 175V/PTI 250V

Other Data

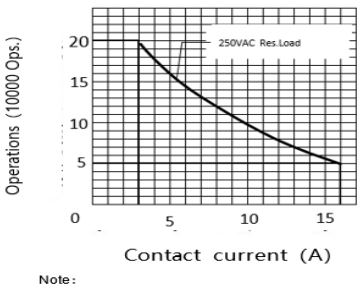
Material compliance: EU RoHS/ELV, China RoHS, REACH

Ambient temperature	-40℃ to +85℃
Category of environmental protection IEC 61810	RTII - flux proof RTIII - Sealed type washable
Weight	Approx. 5.7g
Resistance to soldering heat THT (IEC 60068-2-20)	260°C/5s
Packaging/unit	tube, tray

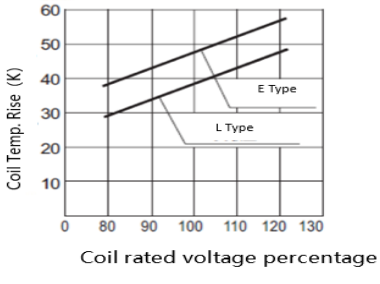
Max. Switching Power



Endurance Curve

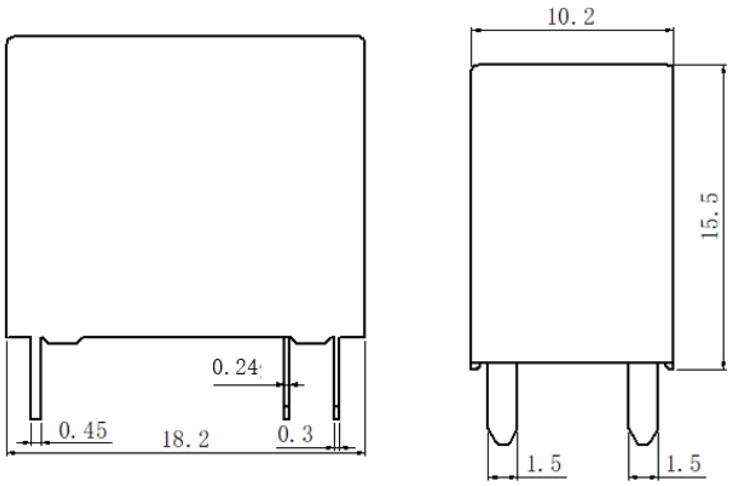


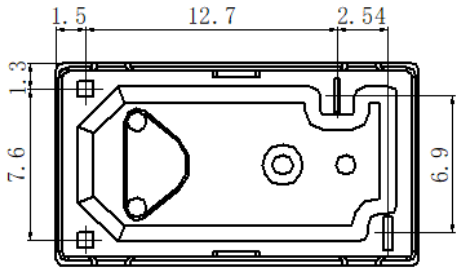
Coil Temp. Rise



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.

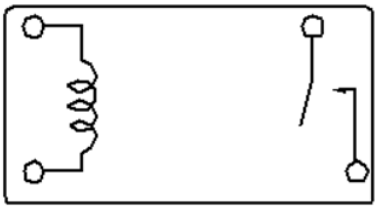
Dimension



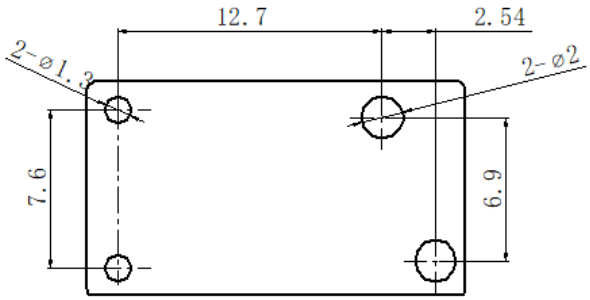


Bottom view

Connection diagrams (bottom view)



Connection diagrams (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

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

Product code structure

SJ	-S	-1	12	E	M	S		-F	-XX

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

SC-High inrush current version

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

Contact Material: Nil-$AgSnO_2$

Contact capacity: S-16A

Contact Arrangement: M-Form A

Coil Power: L-0.2W, E-0.4W

Rated Coil voltage(VDC): 05,06,09,12,18,24

Number of poles : 1-1Pole

Protective Construction: S-Flux proofed, SH-Sealed type washable

Type: SJ

(1) Flux-proofed 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-proofed relays are assembled on PCB.

(3) Special requirements of customers (XX) shall be evaluated by our company and marked by characteristic symbols.

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

(5) (SC) Suitable for high inrush current version (TV-8)

Examples of ordering codes

SJ-S-112EMS relay SJ , Flux-proof , rated DC voltage 12V ,coil power 0.4W,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.