



## Miniature Power Relay

## SRG

### Features

- High Contact Switching Capability: 17A.
- Micro-miniaturize ; Standard PCB terminal.
- Compliant with IEC60335-1 GWIF850°C/GWIT775°C CTI ≥ 250V.
- Ambient temperature range -40°C~105°C, Switching capability 17A/277VAC; TV-8/125VAC, Max. 20A/277VAC.
- Low coil power 0.36W, Class F insulation system.
- Withstand 6KV impulse voltage. Dielectric strength 2.5KV r.m.s.

### Safety Approval

UL , cUL File No. : E190598  
 VDE File No. : 40037165  
 CQC File No. : CQC13002089151

## Contact Data

Type	SRG
Rated load (Resistive load)	17A 250VAC
Max. switching current	20A
Max. switching voltage	277VAC
Max. switching power	4709VA
Min. switching load	6V 1A

## Characteristic

Contact material	Silver alloy	
Contact resistance	100mΩ Max.(at 1A 6VDC)	
Operate time (At rated coil voltage)	15ms Max. (no diode)	
Release time	10ms Max. (no diode)	
Insulation resistance	1,000MΩ Min.(DC500V)	
Dielectric strength	Between open contacts : 1000VAC, 50/60Hz for 1min.	
	Between coil and contact : 2500VAC, 50/60Hz for 1min.	
Vibration resistance	Functional	10~55Hz, at double amplitude of 1.5 mm
	Destructive	10~55Hz, at double amplitude of 1.5 mm
Shock resistance	Functional	10G Min.
	Destructive	100G Min.
Endurance	Mechanical endurance(at 10,800ops./h)	10,000,000(at room temperature)
	Electrical endurance(at 360ops./h)	100,000(at room temperature)
Ambient temperature	-40°C ~ +105°C ( no condensation )	
Weight	Approx. 15g	

**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
5	72.00	69.5	130% of nominal voltage	75% of nominal voltage	10% of nominal voltage	0.36W
6	60.00	100				
9	40.00	225				
12	30.00	400				
18	20.00	900				
24	15.00	1600				
36	10.00	3600				
48	7.50	6400				

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	VDE	UL/cUL
File No.	CQC13002089151	40037165	E190598
Approved Ratings	17A/10A 277VAC	10A 250VAC 17A 250VAC	10A 277VAC, Resistive & General Use 17A 277VAC, Resistive & General Use 20A 125VAC, Resistive & General Use TV-8 125VAC 1HP 250VAC/125VAC

- (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

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

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

Insulation System : Nil – Class B , F - Class F

Contact Material : (Nil –AgSnO<sub>2</sub> , 1 – AgNi

Contact Arrangement : Nil – Form C , B – Form B , M – Form A

Coil Power : D-0.36W

Rated Coil Voltage (VDC) : 05 , 06 , 09 , 12 , 18 , 24 , 36 , 48

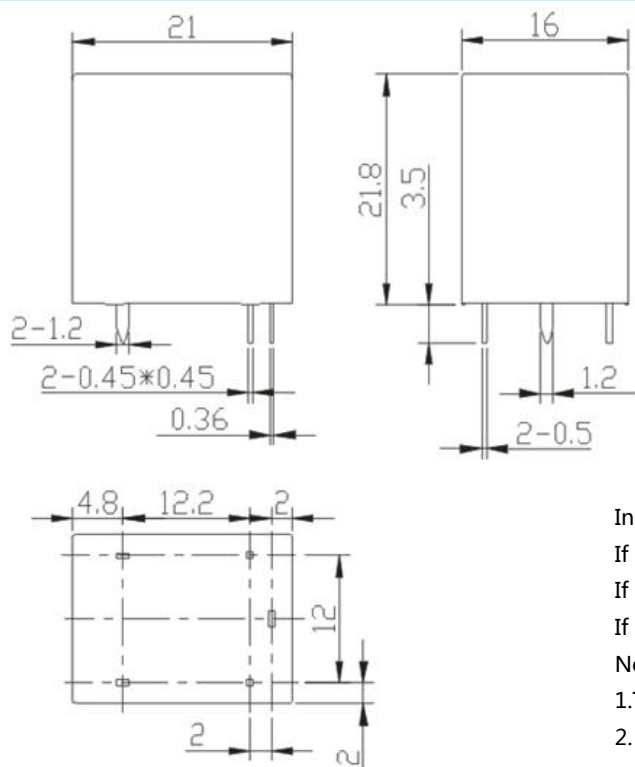
Number of Poles : 1-1 Pole

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

Type : SRG

- (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.

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



Bottom view

In case of no tolerance shown on outline dimension

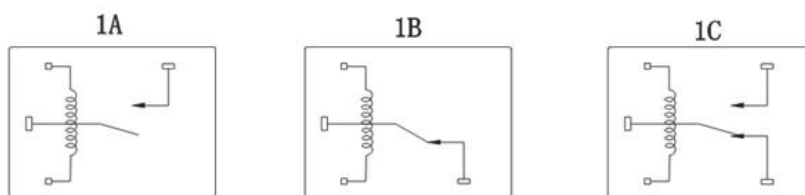
If dimension < 1 mm, tolerance : ±0.2mm

If dimension 1~5mm, tolerance : ±0.3mm

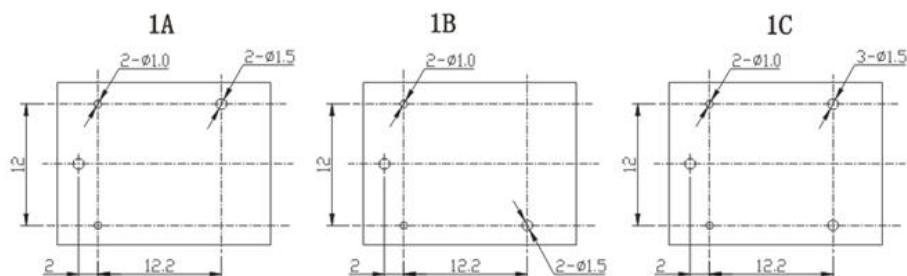
If dimension > 5mm, tolerance : ±0.4mm

Note :

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



Wiring Diagram(Bottom view)

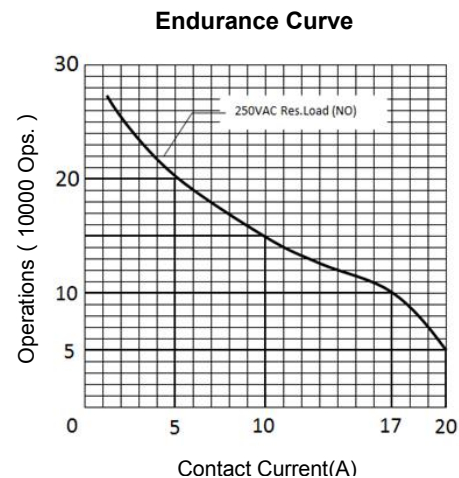
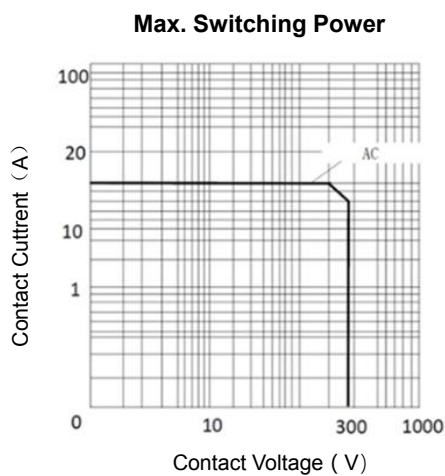
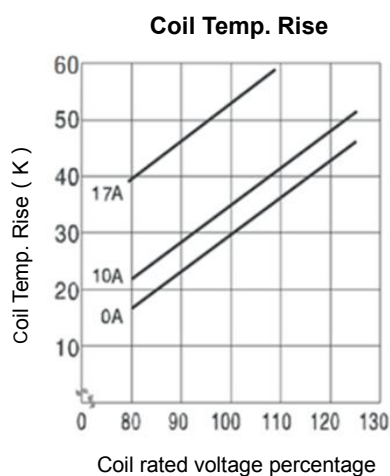


P.C.B. Layout(Bottom view)

## Typical Applications

- Home appliances such as air conditioner, electrical heater, etc.
- Office equipment such as computer, fax machine, etc.
- Automatic power window, car antenna, door lock, etc.
- Automat

## 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 notice.

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