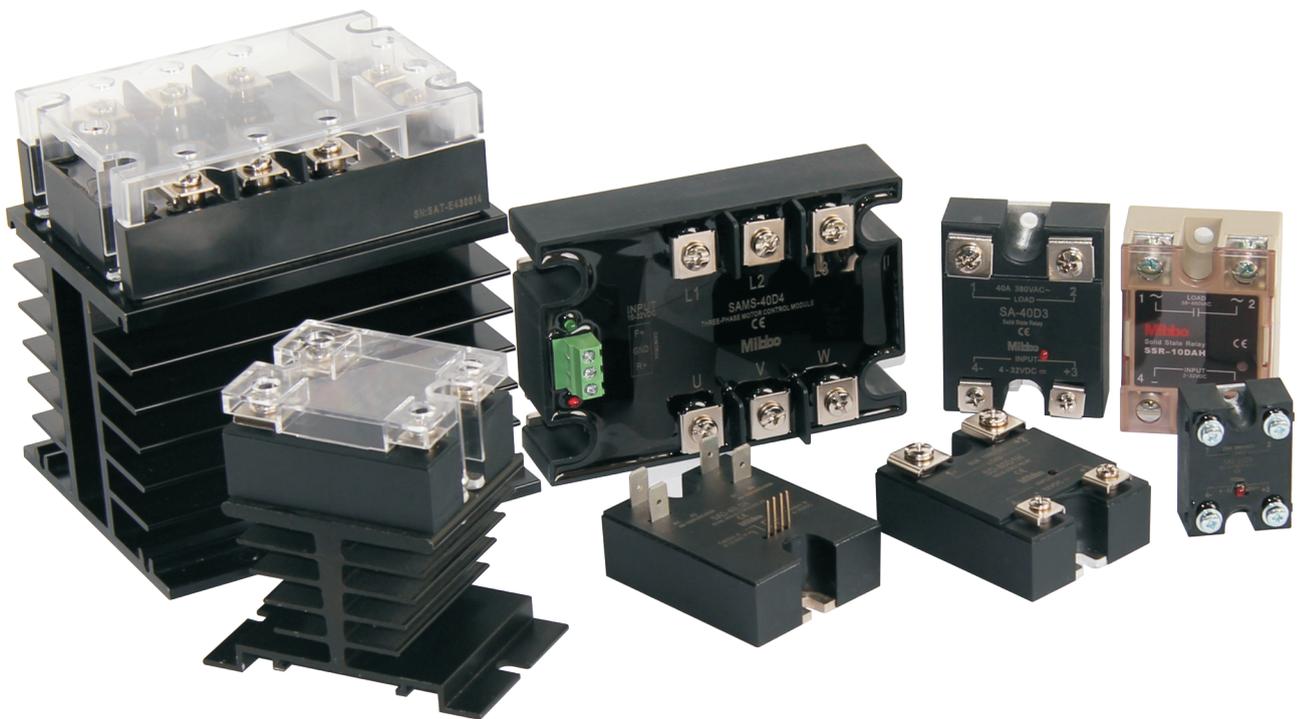


Solid State Relays

High Quality and Reliable, Complete

The Incomparable Solution

Provide customization



Mibbo

Manufacturing Products for QA Customers



Manufacturing Products for QA Customers

Mibbo

Family



>>> About Mibbo

Mibbo is committed to researching and developing, manufacturing and selling industrial control products. To serve the midrange and high end equipment manufactures and system integrators. It pursues "Manufacturing products for QA Customers" to provide customers with high quality products and personalized solutions, and finally to achieve corporate value and customer value growth.

Solid State Relays is one of the major products in Mibbo. To provide our customers more efficient, reliable and qualified solutions in many fields, such as Heating, Lighting, and Motion Control etc.

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About Mibbo Solid State Relays

Solid State Relays(SSR) is the contactless switch which is made up of microelectronic circuits,discrete electronic device and power electronic devices.

its operating frequency is high, no noise, long life, low power consumption, vibration resistance, suitable for bad environment; and the input side uses tiny control signals to drive the large current load directly.It has been widely used to control most industrial loads.

Application

Heating Control

Feature: Precise Temperature Control、 Safe and Reliable Long Life Maintenance Free, Apply to Bad Environment.

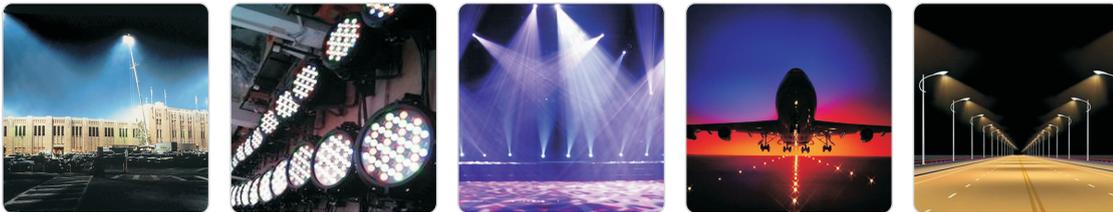
User: Food Equipment, Injection Molding Machine, Plastic Extruding Machine, Thermoforming Machine, Furnace,HVAC,Family Heater, Desiccator etc.



Lighting Controls

Feature: Snap Switch,Silent Operation ,Safe and Reliable, Long Life ,Maintenance Free and Reduce Part Count.

User: Public Lighting, Heater Lighting, Runway Lighting, Road Lighting etc.



Motor Control

Feature:Snap Switch,Stamina,Shock resistance,soft starter,positive inversion,Safe and Reliable,Long Life,Maintenance Free and Reduce Part Count.

User:Musical Fountain, Elevator, gantry crane, lifter,Sports Equipment,Conveying System,Solar Energy,Fan and Electromagnetic Valve Control etc.



Attention

Mibbo The rated current indicated by the fixed relay is based on the resistive load. If used on other loads, the starting current and shutdown surge should be considered.

- > Capacitive load: the rated current of the solid state relay must be thirty times greater than the capacitive load current.
- > Electronic lamps (such as fluorescent lamps): Need to be considered for starting current and turning off the turbo, and the 220VAC power system should be selected 380VAC.
- > The hot bulb (such as the infrared heating lamp tube): Should consider starting current, and the rated current of the solid state relay should be more than four times that of the hot bulb current.
- > Three-phase motor: Should consider starting current, and the rated current of the solid state relay should be four times the average current of the three-phase motor.
- > Inductive load: (such as transformer load) must consider the anti-electric current, the rated current of the solid state relay must be 10 times higher than the inductive load current.

Single-phase AC Output

SA Series



Certification:E500695



- Zero-cross or random turn-on (available)
- Load Current :10A-90A
- SCR output
- Suitable for Adverse Working Conditions
- DC Input
- DBC Base with Strong thermal conductivity
- Dielectric Strength 4000VACrms
- LED status Indicator
- Built-in RC MOV TVS Protection (available)
- Shell Fire Retardant

Description

SA is a single-phase DC solid state relays with built-in SCR structure, it widely used in various kinds of industrial field, and suitable for resistance, sensibility and capacitive load.
Load voltage range from 48VAC to 440VAC, 48VAC to 530VAC, VAC to 440VAC, with outputs current at 10A, 25A, 40A, 50A, 75A, 90A.

Model Coding

SA	25	D	3	Z	M
SA Series	Load Current 10:10Amps 25:25Amps 40:40Amps 50:50Amps 75:75Amps 90:90Amps	Control Type D: DC Control 4-32VDC A: AC Control 90-280VAC	Load Voltage 3:48-440VAC 4:48-530VAC 6:48-660VAC	Zero cross function Z: Zero cross turn-on R: Random turn-on	Protection Non: without M:MOV protection T:TVS protection (Available)

Model No.	SA-10□3□□	SA-25□3□□	SA-40□3□□	SA-50□3□□	SA-75□3□□	SA-90□3□□
	SA-10□4□□	SA-25□4□□	SA-40□4□□	SA-50□4□□	SA-75□4□□	SA-90□4□□
	SA-10□6□□	SA-25□6□□	SA-40□6□□	SA-50□6□□	SA-75□6□□	SA-90□6□□

Specification

Input Parameter

Control Voltage Range	4-32VDC
Minimum Turn-On Voltage	4VDC
Minimum Turn-Off Voltage	1VDC
Maximum Inout Current	25mA

Output Parameter

Rated Load Current	10A	25A	40A	50A	75A	90A
Output Voltage Range	SA-□D3:48-440VAC / SA-□D4:48-530VAC / SA-□D6:48-660VAC					
Maximum Turn-On Time	Random	1ms				
	Zero cross	1/2AC Cycle + 1ms				
Maximum Turn-Off Time	1/2AC Cycle + 1ms					
Maximum Surge Current[@10ms]	150A	400A	440A	860A	1280A	1550A
Max.I ² t for fusing [@10ms]	350A ² S	900A ² S	970A ² S	3698A ² S	8192A ² S	12012A ² S
Maximum. Transient Voltage	SA-□D3 : 800Vpk \ SA-□D4 : 1200Vpk \ SA-□D6:1600Vpk					
Maximum.Off-state Leakage Current (at rated voltage)	5mA					
Max. On-state Voltage Drop. (at rated voltage)	1.6Vrms					
Min.Off-state Dv/dt	500 V/μs					

General

Dielectric Strength (input /output/base)	input to output : 4 KVrms	input to base : 2.5kVrms	output to base : 2.5KVrms
Operating Temperature	-30°C ~ +80°C		
Storage Temperature	-30°C ~ +100°C		
Weight	88g		

Accessory(Available)

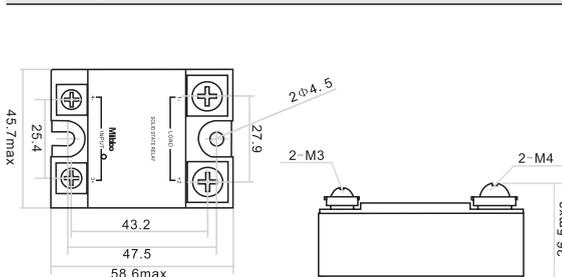
Din-rail mounting accessory	DIN-01	DIN-01				
Heat Transfer Pad	SH-D1					
Protective Cover	SP-D11					
Radiator(Available) Remark ①	SH-01	SH-01	SH-03	SH-05	SH-07	SH-08

Remark ① Radiator in the field use to consider the environmental temperature and temperature rise, the radiator temperature cannot exceed 70 degrees, more than 70 degrees need to increase the radiator or increase the radiator fan forced air cooling.

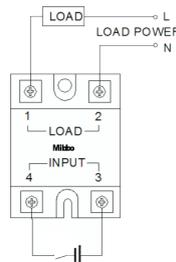
Applications

Suitable for Lempure, Plastic Machinery, Incubator, Oil Filling Machine, Air Conditioning, Elevator, Lighting, Fountain Controller etc.

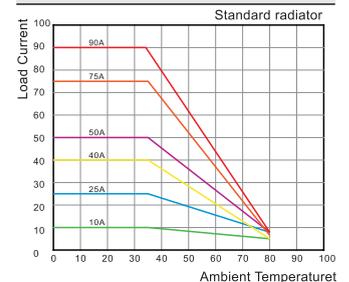
Mounting Dimension



Wiring Diagram



Characteristic Curves



Single-phase AC Output

SSR Series



- Load Current: 10A-40A
- Suitable for Adverse Working Conditions
- With protective cover to ensure safety
- High strength cooling aluminum/copper base(Available)
- Dielectric Strength 2500VACrms
- LED status Indicator
- High insulation impedance

Description

SSR is a single-phase DC solid state relays, it widely used in various kinds of industrial field, and suitable for resistance, sensibility and capacitive load. Load Voltage:28-480VAC,with outputs current at 10A,15A,25A,40A.

Model Coding

SSR	40	D	A	H	C
SSR Series	Load Current	Control Type	Load Voltage	Load Voltage	Thermal Dissipation
	10:10Amps 15:15Amps 25:25Amps 40:40Amps	D: DC Control 4-32VDC	A: AC Output 38-480VAC	H:38-480VAC	Non: Aluminium heat sink C : Copper heat sink (Available)

Model No.	SSR-10DAH□	SSR-15DAH□	SSR-25DAH□	SSR-40DAH□
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Specification

Input Parameter

Control Voltage Range	3-32VDC
Minimum Turn-On Voltage	3VDC
Minimum Turn-Off Voltage	1VDC
Maximum Inout Current	25mA

Output Parameter

Rated Load Current	10A	15A	25A	40A
Output Voltage Range	38 - 480 VAC			
Maximum Turn-On Time	Zero cross 1/2AC Cycle + 1ms			
Maximum Turn-Off Time	1/2AC Cycle + 1ms			
Maximum Surge Current [@10ms]	135A	200A	275A	400A
Max.I ² t for fusing [@10ms]	140A ² S	210A ² S	275A ² S	410A ² S
Maximum. Transient Voltage	800Vpk			
Maximum.Off-state Leakage Current (at rated voltage)	5mA			
Max. On-state Voltage Drop. (at rated voltage)	1.6Vrms			
Min.Off-state Dv/dt	200V/μs			

General

Dielectric Strength (input /output/base)	input to output : 4 KVrms	iinput to base : 2.5kVrms	output to base : 2.5KVrms
Operating Temperature	-30°C ~ +80°C		
Storage Temperature	-30°C ~ +100°C		
Weight	93g (SSR-□DAHC: 146g)		

Accessory(Available)

Din-rail mounting accessory	DIN-01	DIN-01		
Heat Transfer Pad	SH-D1			
Radiator(Available) Remark ①	SH-01	SH-01	SH-01	SH-03

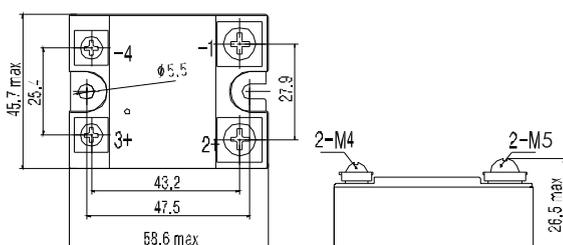
Remark ①

Radiator in the field use to consider the environmental temperature and temperature rise, the radiator temperature cannot exceed 70 degrees, more than 70 degrees need to increase the radiator or increase the radiator fan forced air cooling.

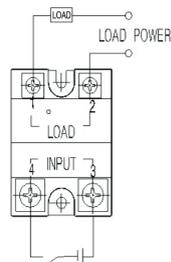
Applications

Suitable for Lempure, Plastic Machinery, Incubator, Oil Filling Machine, Air Conditioning, Elevator, Lighting, Fountain Controller etc.

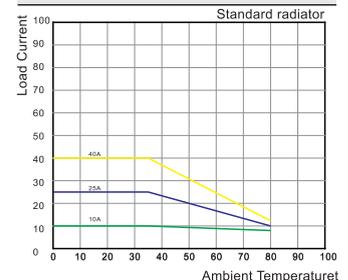
Mounting Dimension



Wiring Diagram



Characteristic Curves



Single-phase AC Output (Miniature)

SAE Series



- Zero-cross or random turn-on (available)
- Load current: 10A 15A 25A
- Triac output
- Suitable for Adverse Working Conditions
- Photoelectric isolation $\geq 4000VACrms$
- Built-in RC Protection
- LED Indicator
- Shell Fire Retardant

Description

SAE is a single-phase solid state relay with built-in triac structure, it widely used in various kinds of industrial field, and suitable for resistance, sensibility and capacitive load. Load voltage range from 48VAC to 440VAC, with outputs current at 10A, 15A, 40A, 25A.

Model Coding

SAE	25	D	3	Z
SAE Series	Load Current 10:10Amps 15:15Amps 25:25Amps	Control Type D: DC Control 4-32VDC	Load Voltage 3:48-440VAC	Zero cross function Z: Zero cross turn-on R: Random turn-on

Model No.	SAE-10D3□	SAE-15D3□	SAE-25D3□
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Specification

Input Parameter

Control Voltage Range	4-32VDC
Minimum Turn-On Voltage	4VDC
Minimum Turn-Off Voltage	1VDC
Maximum Inout Current	25mA

Output Parameter

Rated Load Current	10A	15A	25A
Output Voltage Range	48-440VAC		
Maximum Turn-On Time	Random	1ms	
	Zero cross	1/2AC Cycle + 1ms	
Maximum Turn-Off Time	1/2AC Cycle + 1ms		
Max. surge current	100A	160A	250A
Maximum Transient Voltage	800Vpk		
Maximum Off-state Leakage Current (at rated voltage)	5mA		
Max. On-state Voltage Drop. (at rated voltage)	1.6Vrms		
Min. Off-state Dv/dt	200V/μs		

General

Dielectric Strength (input/output/base)	input to output : 4 KVrms	iinput to base : 2.5kVrms	output to base : 2.5KVrms
Operating Temperature	-30°C ~ +80°C		
Storage Temperature	-30°C ~ +100°C		
Weight	35g		

Accessory(Available)

Protective Cover	SP-D12		
Radiator(Available)	SH-01	SH-01	SH-01

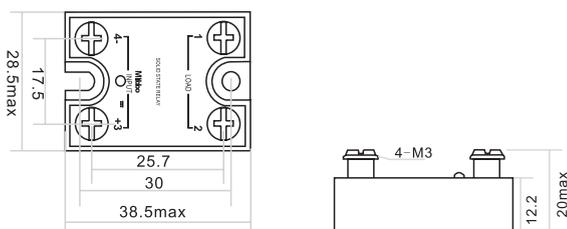
Remark ①

Radiator in the field use to consider the environmental temperature and temperature rise, the radiator temperature cannot exceed 70 degrees, more than 70 degrees need to increase the radiator or increase the radiator fan forced air cooling.

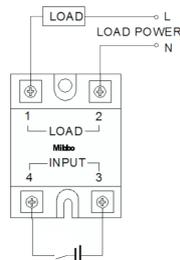
Applications

Suitable for Lempure, Plastic Machinery, Incubator, Oil Filling Machine, Air Conditioning, Elevator, Lighting, Fountain Controller etc.

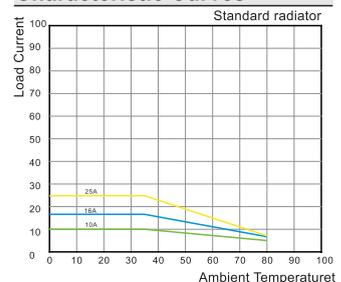
Mounting Dimension



Wiring Diagram



Characteristic Curves



Dual Single-phase AC Output

SAD Series

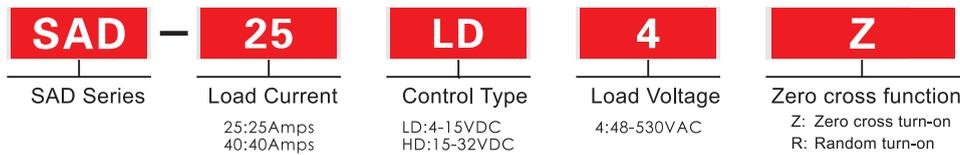


- Zero-cross or random turn-on (available)
- Load current: 25A- 40A
- SCR output
- Suitable for Adverse Working Conditions
- DC output control
- DBS base with strong thermal conductivity
- Dielectric Strength 4000VACrms
- RoHS Compliant
- Shell Fire Retardant

Description

SSR is a dual single-phase solid state relays, which is adopted the parallel control structure inside. It widely used in various kinds of industrial field, and suitable for resistance, sensibility and capacitive load. Load voltage range from 48VAC to 530VAC, with outputs current at 25A, 40A.

Model Coding



Model No.	SAD-25LD4□	SAD-40LD4□	SAD-25HD4□	SAD-40HD4□
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Specification

Input Parameter

Control Voltage Range	4-15VDC	15-32VDC
Minimum Turn-On Voltage	4VDC	15VDC
Minimum Turn-Off Voltage	1VDC	1VDC
Maximum Inout Current	50mA	20mA

Output Parameter

Rated Load Current	25A	40A	25A	40A
Output Voltage Range	48-530VAC		48-530VAC	
Maximum Turn-On Time	Random	1ms	Random	1ms
	Zero cross	1/2AC Cycle + 1ms	Zero cross	1/2AC Cycle + 1ms
Maximum Turn-Off Time	1/2AC Cycle + 1ms		1/2AC Cycle + 1ms	
Maximum Surge Current [@10ms]	300A	600A	300A	600A
Max. I ² t for fusing [@10ms]	400A ² S	1600A ² S	400A ² S	1600A ² S
Maximum. Transient Voltage	1200Vpk		1200Vpk	
Maximum. Off-state Leakage Current (at rated voltage)	2mA		2mA	
Max. On-state Voltage Drop. (at rated voltage)	1.5Vrms		1.5Vrms	
Min. Off-state Dv/dt	500 V/μs		500 V/μs	

General

Dielectric Strength (input /output/base)	input to output : 4 KVrms	iinput to base : 2.5KVrms	output to base : 2.5KVrms
Operating Temperature	-30°C ~ +80°C		
Storage Temperature	-30°C ~ +100°C		
Weight	100g		

Accessory(Available)

Din-rail mounting accessory	DIN-01		DIN-01	
Heat Transfer Pad	SH-D1			
Radiator(Available) Remark ①	SH-01	SH-03	SH-01	SH-03

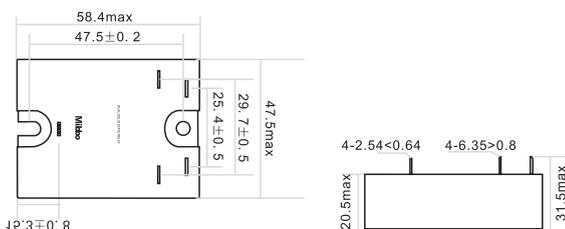
Remark ①

Radiator in the field use to consider the environmental temperature and temperature rise, the radiator temperature cannot exceed 70 degrees, more than 70 degrees need to increase the radiator or increase the radiator fan forced air cooling.

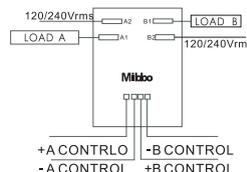
Applications

Suitable for Lenpure, Plastic Machinery, Incubator, Oil Filling Machine, Air Conditioning, Elevator, Lighting, Fountain Controller etc.

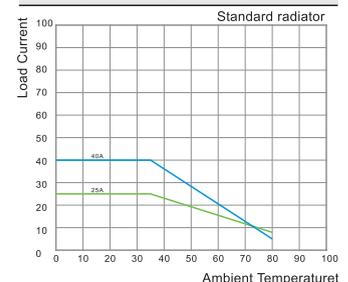
Mounting Dimension



Wiring Diagram



Characteristic Curves



Single-phase DC Output

SD Series



- 4-32VDC control voltage 4-32VDC
- 4000VACrms Dielectric Strength 4000VACrms
- Photoelectric isolation
- LED Indicator
- RoHS Compliant
- Shell Fire Retardant

Description

SD is a NO AC output solid state relays with panel-mounted , offer (4~32)VDC input voltage control,The relays provide 4000VAC opto-isolation, between input and output.

Model Coding

SD	25	D	50
SD Series	Load Current 7:7Amps 10:10Amps 20:20Amps 25:25Amps 40:40Amps 50:50Amps 80:80Amps	Control Type D:DC Control 4-32VDC	Load Voltage 50:0-50VDC 1H:0-100VDC 4H:0-400VDC 1K:10-1200VDC

Model No.	SD-7D50	—	—	SD-25D50	—	SD-50D50	SD-80D50
	—	SD-10D1H	SD-20D1H	—	SD-40D1H	—	SD-80D1H
	SD-7D4H	—	SD-20D4H	—	—	—	—
	—	—	—	SD-25D1K	—	SD-50D1K	—

Specification

Input Parameter

Control Voltage Range	4-32VDC
Minimum Turn-On Voltage	4DC
Minimum Turn-Off Voltage	1VDC
Maximum Inout Current	28 mA @32VDC

Output Parameter

Rated Load Current	7A	10A	20A	25A	40A	50A	80A
Output Voltage Range	SD-□D50:0-50VDC; SD-□D1H:0-100VDC;SD-□D4H:10-400VDC; SD-□D1K:10-1200VDC;						
Max. surge current(@10ms)	SD-7D50:35A; SD-25D50:75A; SD-50D50:125A; SD-80D50:200A; SD-10D1H:10A; SD-20D1H:80A; SD-40D1H:120A; SD-80D1H:200A; SD-7D4H:30A; SD-20D4H: 50A; SD-25D1K:75A; SD-50D1K:100A						
Maximum Turn-On Time	100μs						
Maximum Turn-Off Time	500μs						
Maximum.Off-state Leakage Current (at rated voltage)	0.1mA						
Max. On-state Voltage Drop. (at rated voltage)	1.5VDC						

General

Dielectric Strength (input /output/base)	input to output : 2.5kVrms	input to base : 2.5kVrms	output to base : 2.5kVrms
Operating Temperature	-30°C ~ +80°C		
Storage Temperature	-30°C ~ +100°C		
Weight	80g		

Accessory(Available)

Din-rail mounting accessory	DIN-01	DIN-01	DIN-01	DIN-01			
Heat Transfer Pad	SH-D1						
Protective Cover	SP-D11						
Radiator(Available) Remark ①	SH-01	SH-01	SH-01	SH-01	SH-03	SH-05	SH-08

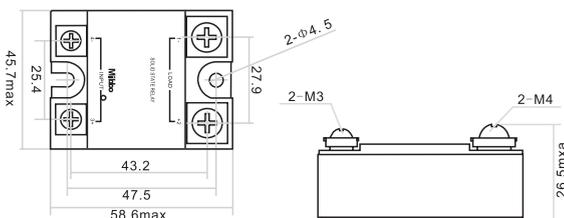
Remark ①

Radiator in the field use to consider the environmental temperature and temperature rise, the radiator temperature cannot exceed 70 degrees, more than 70 degrees need to increase the radiator or increase the radiator fan forced air cooling.

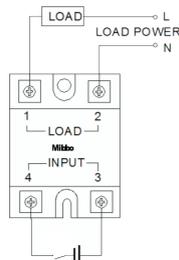
Applications

Dc heating, DC power supply, DC valve, DC motor, Solar Energy, etc.

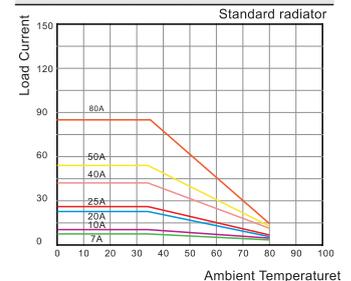
Mounting Dimension



Wiring Diagram



Characteristic Curves



DC Output

SDH Series



SDH-200D1H

- MOSEET Output
- Low on-resistance
- Photoelectric isolation
- RoHS Compliant
- Shell Fire Retardant

SDH-100D6H

- IGBT output
- Built-in RC snubber circuit
- RoHS Compliant
- Shell Fire Retardant

Description

SDH is a AC output solid state relays with panel-mounted(Normally Open) , SDH-200D1H,offer (4~32)VDC input voltage control, with outputs current at 200A;SDH-100D6H,offer (8~32)VDC input voltage control,with outputs current at 100A.

Model Coding

SDH	—	100	D	1H
SDH Series		Load Current 100 : 100Amps 200 : 200Amps	Control Type D:DC Control 4-32VDC 8-32VDC	Load Voltage 1H:0-100VDC 6H:10-600VDC

Model No.	SDH-200D1H	SDH-100D6H
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Specification

Input Parameter

Control Voltage Range	4-32VDC	8-32VDC
Minimum Turn-On Voltage	4VDC	8VDC
Minimum Turn-Off Voltage	1VDC	4VDC
Max. control current	28mA @ 32VDC	25mA @32VDC
Max. reverse protection voltage	32VDC	-

Output Parameter

Rated Load Current	200A	100A
Output Voltage Range	0-100VDC	10-600VDC
Maximum. Transient Voltage	-	600V
Max. surge current(@10ms)	1250A	400A
Maximum Turn-On Time	500μs	5ms
Maximum Turn-Off Time	500μs	5ms
Maximum.Off-state Leakage Current (at rated voltage)	0.1mA	2mA
Max. On-state Voltage Drop. (at rated voltage)	1.5V	1.6V

General

Dielectric Strength (input /output/base)	input to output : 2.5kVrms	input to base : 2.5kVrms	output to base : 2.5kVrms
Operating Temperature	-30°C ~ +80°C		
Storage Temperature	-30°C ~ +100°C		
Weight	380g		

Accessory(Available)

Heat Transfer Pad	SH-D2	
Protective Cover	SP-D31	
Radiator(Available)	SH-08	SH-08

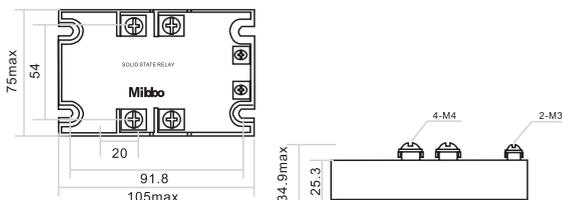
Remark ①

Radiator in the field use to consider the environmental temperature and temperature rise, the radiator temperature cannot exceed 70 degrees, more than 70 degrees need to increase the radiator or increase the radiator fan forced air cooling.

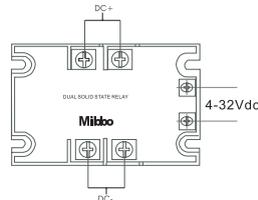
Applications

Furnace Temperature Control System, Large Oven, Coal Stove, etc.

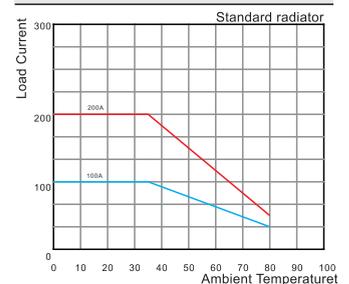
Mounting Dimension



Wiring Diagram



Characteristic Curves



Three-phase AC Output

SAT Series



- Zero-cross or random turn-on (available)
- Rated Load Current: 25-60A
- DC or AC input
- SCR output
- LED status Indicator
- Dielectric Strength 4000VACrms
- Built-in MOV protection, RC snubber circuit
- Customized Phase-Loss Protection available
- RoHS Compliant
- Shell Fire Retardant

Description

SAT is a three-phase AC output relay(Normally Open), offer (4~32)VDC/(90-280)VAC input voltage control,with outputs current at 25A,40A,60A, and (48~440)VAC, (48~530)VAC output voltage. The output device is SCR,output. switching modes are divided into zero cross turn-on type and random turn-on type.

Model Coding

SAT	25	D	3	Z	M
SAT Series	Load Current 25:25Amps 40:40Amps 60:60Amps	Control Type D: DC Control 4-32VDC A: AC Control 90-280VAC	Load Voltage 3:48-440VAC 4:48-530VAC	Zero cross function Z: Zero cross turn-on R: Random turn-on	Protection Non: without M:MOV protection (Available)

Model No.	SAT-25D3□□	SAT-40D3□□	SAT-60D3□□	SAT-25A3□□	SAT-40A3□□	SAT-60A3□□
	SAT-25D4□□	SAT-40D4□□	SAT-60D4□□	SAT-25A4□□	SAT-40A4□□	SAT-60A4□□

Specification

Input Parameter

Control Voltage Range	4-32VDC	90-280VAC
Minimum Turn-On Voltage	4VDC	90VAC
Minimum Turn-Off Voltage	1VDC	10VAC
Maximum Inout Current	28 mA @32VDC	10mA@280VAC

Output Parameter

Rated Load Current	25A	40A	60A	25A	40A	60A
Output Voltage Range	SAT-□D/A3 : 48-440VAC			SAT-□D/A4 : 48-530VAC		
Maximum. Transient Voltage	SAT-□D/A3 : 800Vpk			SAT-□D/A4 : 1200Vpk		
Maximum Turn-On Time	Random	1ms		20ms		
	Zero cross	1/2AC Cycle + 1ms		20ms		
Maximum Turn-Off Time	1/2AC Cycle + 1ms			40ms		
Maximum,Off-state Leakage Current (at rated voltage)	5mA			5mA		
Max. On-state Voltage Drop. (at rated voltage)	1.6Vrms			1.6Vrms		
Min,Off-state Dv/dt	500 V/μs			500 V/μs		

General

Dielectric Strength (input /output/base)	input to output : 4 KVrms	input to base : 2.5kVrms	output to base : 2.5KVrms
Operating Temperature	-30°C ~ +80°C		
Storage Temperature	-30°C ~ +100°C		
Weight	350g		

Accessory(Available)

Heat Transfer Pad	SH-D2						
Protective Cover	SP-D31						
Radiator(Available)	Remark ①	SH-03	SH-07	SH-08	SH-03	SH-07	SH-08

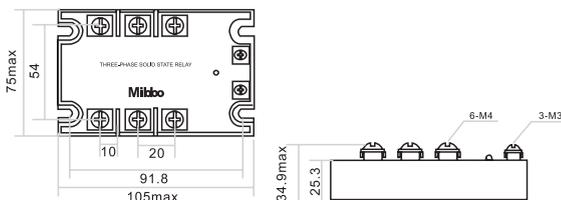
Remark ①

Radiator in the field use to consider the environmental temperature and temperature rise, the radiator temperature cannot exceed 70 degrees, more than 70 degrees need to increase the radiator or increase the radiator fan forced air cooling.

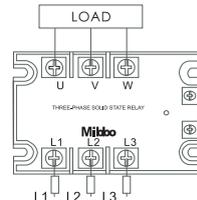
Applications

Three-phase Motor Control, Furnace Temperature Control System, Large Oven etc.

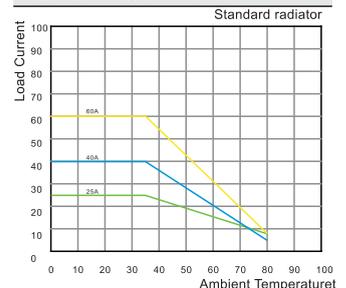
Mounting Dimension



Wiring Diagram



Characteristic Curves



Three-phase Motor Reversing Module

SAMT Series



- Random turn-on
- Rated Load Current: 25A 40A 50A
- SCR output Used for heavy industrial load
- Dielectric Strength 4000VACrms
- Built-in MOV protection, RC snubber circuit
- High-EMC Design
- Shell Fire Retardant

Description

SAMT three-phase motor reversing module is a special solid state relay. It integrates logic interlock circuit and turn-on delay circuit, to avoid destruction from power short circuit caused by misoperation from input terminal. As long as the switching time meet the specification, it can protect the power supply system, motor and module itself. In the meantime, the module integrates RC snubber to improve its reliability.

Model Coding

SAMT	25	D	3
SAMT Series	Load Current 25: 25Amps 40: 40Amps 50: 50Amps	Control Type D: DC Control 10-32VDC	Load Voltage 3: 48-440VAC 4: 48-530VAC

Model No.	SAMT-25D3	SAMT-40D3	SAMT-50D3
	SAMT-25D4	SAMT-40D4	SAMT-50D4

Specification

Input Parameter

Control Voltage Range	10-32VDC
Minimum Turn-On Voltage	10VDC
Minimum Turn-Off Voltage	3VDC
Maximum Inout Current	35mA
Min Toggle interval	50ms

Output Parameter

Rated Load Current	25A	40A	50A
Output Voltage Range	SAMT-□D3:48-440VAC \ SAMT-□D4:48-530VAC		
Maximum. Transient Voltage	SAMT-□D3:800Vpk \ SAMT-□D4:1200Vpk		
Maximum Turn-Off Time	1/2AC Cycle + 1ms		
Maximum Surge Current [@10ms]	300A	500A	600A
Maximum,Off-state Leakage Current (at rated voltage)	5mA		
Max. On-state Voltage Drop. (at rated voltage)	1.6Vrms		
Min.Off-state Dv/dt	500V/μs		

General

Dielectric Strength (input /output/base)	input to output : 4 KVrms	iinput to base : 2.5kVrms	output to base : 2.5KVrms
Operating Temperature	-30°C ~ +80°C		
Storage Temperature	-30°C ~ +100°C		
Weight	340g		
Operating status indication	Green: forward Red:reversal		

Accessory(Available)

Heat Transfer Pad	SH-D2		
Protective Cover	SP-D31		
Radiator(Available) Remark ①	SH-03	SH-07	SH-08

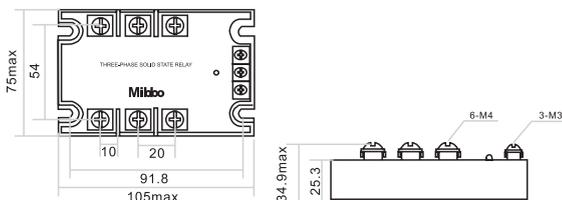
Remark ①

Radiator in the field use to consider the environmental temperature and temperature rise, the radiator temperature cannot exceed 70 degrees, more than 70 degrees need to increase the radiator or increase the radiator fan forced air cooling.

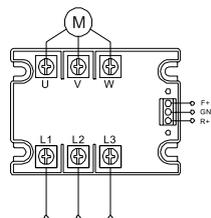
Applications

The transformer has load regulating device.

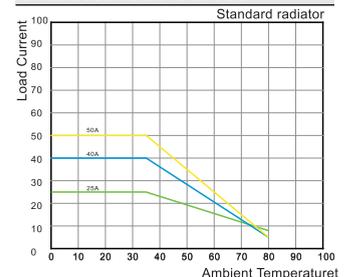
Mounting Dimension



Wiring Diagram



Characteristic Curves



Three-phase Motor Reversing Module

SAMS Series



- Random turn-on
- Rated Load Current: 25A 40A 50A
- 10-32VDC control input
- Built-in RC.MOV protection
- Three-phase and two control/Three-phase and three control(available)
- Shell Fire Retardant

Description

SAMS three-phase moter reversing module is a special solid state relay. It integrates logic interlock circuit and turn-on delay circuit, to avoid destruction from power short circuit caused by misoperation from input terminal. As long as the switching time meet the specification, it can protect the power supply system, motor and module itself. In the meantime, the module integrates RC snubber to improve its reliability. The module offer (48 ~ 440) VAC, (48 ~ 530) VACoutput voltage, with output current at 25A, 40A and 60A. The modules are widely used for severe environment include Electric actuator control, such as steam valve, flow control, interceptor valve actuator.

Model Coding

SAMS	25	D	3	F
SAMS Series	Load Current 25: 25Amps 40: 40Amps 60: 60Amps	Control Type D: DC Control 10-32VDC	Load Voltage 3: 48-440VAC 4: 48-530VAC	F: Three-phase and three control Non: Three-phase and two control (Available)

Model No.	SAMS-25D3□	SAMS-40D3□	SAMS-60D3□
	SAMS-25D4□	SAMS-40D4□	SAMS-60D4□

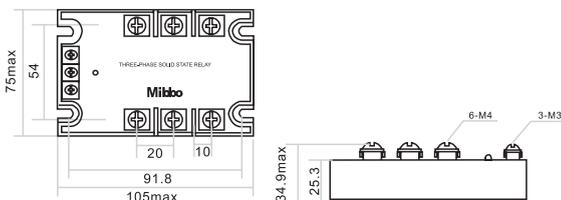
Specification

Input Parameter			
Control Voltage Range	10-32VDC		
Minimum Turn-On Voltage	10VDC		
Minimum Turn-Off Voltage	1VDC		
Maximum Inout Current	35mA		
Min Toggle interval	80ms		
Output Parameter			
Rated Load Current	25A	40A	60A
Output Voltage Range	SAMS-□D3□: 48-440VAC / SAMS-□D4□: 48-530VAC		
Maximum. Transient Voltage	SAMS-□D3□: 800Vpk / SAMS-□D4□: 1200Vpk		
Min. load current	100mA		
Maximum Turn-Off Time	1/2AC Cycle + 1ms		
Maximum Surge Current [@10ms]	250A	400A	800A
Maximum.Off-state Leakage Current (at rated voltage)	5mA		
Max. On-state Voltage Drop. (at rated voltage)	1.6Vrms		
Min.Off-state Dv/dt	500V/μs		
General			
Dielectric Strength (input /output/base)	input to output : 4 KVrms	iinput to base : 2.5kVrms	output to base : 2.5KVrms
Operating Temperature	-30℃ ~ +80℃		
Storage Temperature	-30℃ ~ +100℃		
Weight	340g		
Operating status indication	Green: forward Red:reversal		
Accessory(Available)			
Heat Transfer Pad	SH-D2		
Protective Cover	SP-D31		
Radiator(Available) Remark ①	SH-03	SH-07	SH-08
Remark ①	Radiator in the field use to consider the environmental temperature and temperature rise, the radiator temperature cannot exceed 70 degrees, more than 70 degrees need to increase the radiator or increase the radiator fan forced air cooling.		

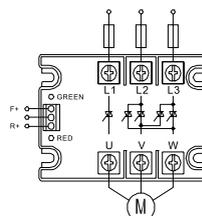
Applications

Three-phase moter reversing control, such as electric actuator control, the transformer has load regulating device, etc.

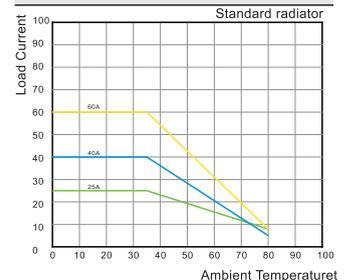
Mounting Dimension



Wiring Diagram



Characteristic Curves



Pressure Regulating (Non-Isolated)

SAV Series



- Non - isolation mode regulating module
- 10A~100A@176-264VAC,300-440VAC
- Regulator Potentiometer 150K/2W,220K/2W,470K/2W
- Security cover(available)
- LED Status Indicator
- Built-in RC Snubber Circuit
- Shell Fire Retardant

Description

SAV is a non - isolation mode regulating module. The regulator potentiometer,150K/2W,470K/2W.Due to It has a variety of application performance, It is the most widely used industrial regulation module.,with outputs current at 10-100A @ 176-264VAC,300-440vAc.

Model Coding

SAV	40	F	3
SAV Series	Load Current 10: 10Amps 25: 25Amps 40: 40Amps 60: 60Amps 80: 80Amps 100: 100Amps	Regulate the potentiometer F: 150K/2W G: 220K/2W H: 470K/2W	Load Voltage 2: 176-264VAC 3: 300-440VAC

Model No.	SAV-10F2	SAV-25F2	SAV-40F2	SAV-60F2	SAV-80F2	SAV-100F2
	SAV-10F3	SAV-25F3	SAV-40F3	SAV-60F3	SAV-80F3	SAV-100F3
	SAV-10G2	SAV-25G2	SAV-40G2	SAV-60G2	SAV-80G2	SAV-100G2
	SAV-10G3	SAV-25G3	SAV-40G3	SAV-60G3	SAV-80G3	SAV-100G3
	SAV-10H2	SAV-25H2	SAV-40H2	SAV-60H2	SAV-80H2	SAV-100H2
	SAV-10H3	SAV-25H3	SAV-40H3	SAV-60H3	SAV-80H3	SAV-100H3

Specification

Input Parameter

Regulate the potentiometer position	F	150K/2W
	G	220K/2W
	H	470K/2W

Output Parameter

Rated Load Current	10A	25A	40A	60A	80A	100A
Output Voltage Range	SAV-□□2:176-264VAC \ SAV-□□3:300-440VAC					
Maximum. Transient Voltage	SAV-□□2:600Vpk \ SAV-□□3:800Vpk					
Max. surge current(@10ms)	100A	250A	400A	600A	800A	1000A
Maximum.Off-state Leakage Current (at rated voltage)	5mA					
Max. On-state Voltage Drop. (at rated voltage)	1.6Vrms					
Insulation Resistance(DC500V)	1000M					

General

Dielectric Strength (input /output/base)	input to base : 2.5kVrms output to base : 2.5kVrms					
Operating Temperature	-20°C ~ +80°C					
Storage Temperature	-30°C ~ +100°C					
Weight	85g					

Accessory(Available)

Din-rail mounting accessory	DIN-01	DIN-01				
Heat Transfer Pad	SH-D1					
Protective Cover	SP-D11					
Radiator(Available)	SH-01	SH-01	SH-03	SH-07	SH-08	SH-08

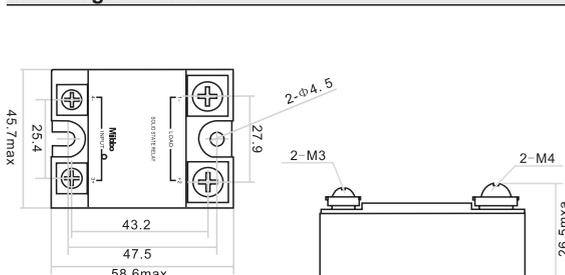
Remark ①

Radiator in the field use to consider the environmental temperature and temperature rise, the radiator temperature cannot exceed 70 degrees, more than 70 degrees need to increase the radiator or increase the radiator fan forced air cooling.

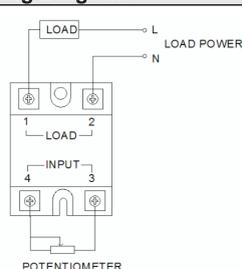
Applications

Various kinds of Temperature Adjusting Devices, Plastic Molding Machines, Vulcanized Machinery, etc.

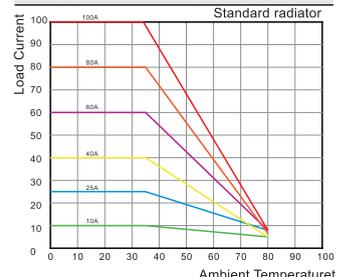
Mounting Dimension



Wiring Diagram



Characteristic Curves



Single-phase output with heatsink

ST Series



- SCR output
- LED status indicator
- DC or AC control
- Photoelectric isolation
- Dielectric strength 4000V
- Built-in RC snubber circuit
- with heatsink
- Can be mounted on 35mm rail or be panel mounted

Description

The product is a heatsink integrated products, with rail clips, can be mounted on 35mm rail mounting and can also be screwed on the panel.

Model Coding

ST	20	D	3	Z	B
ST Series	Load Current	Control Type	Load Voltage	Zero cross function	Input Termination
	10 : 10 Amps 20 : 20 Amps 30 : 30 Amps 40 : 40 Amps	D : 4-32VDC LA : 90-140VAC HA : 180-280VAC E : AC/DC24V	2 : 48-280VAC 3 : 48-440VAC 4 : 48-530VAC	Z : Zero cross turn-on R : Random turn-on	B : Screw Type S : Spring Type

Model No.	ST-10D2□□	ST-10D4□□	ST-10LA2□□	ST-10LA4□□	ST-10HA2□□	ST-10HA4□□	ST-10E2□□	ST-10E4□□
	ST-20D2□□	ST-20D4□□	ST-20LA2□□	ST-20LA4□□	ST-20HA2□□	ST-20HA4□□	ST-20E2□□	ST-20E4□□
	ST-30D2□□	ST-30D4□□	ST-30LA2□□	ST-30LA4□□	ST-30HA2□□	ST-30HA4□□	ST-30E2□□	ST-30E4□□
	ST-40D2□□	ST-40D4□□	ST-40LA2□□	ST-40LA4□□	ST-40HA2□□	ST-40HA4□□	ST-40E2□□	ST-40E4□□
	ST-10D3□□	ST-10D6□□	ST-10LA3□□	ST-10LA6□□	ST-10HA3□□	ST-10HA6□□	ST-10E3□□	ST-10E6□□
	ST-20D3□□	ST-20D6□□	ST-20LA3□□	ST-20LA6□□	ST-20HA3□□	ST-20HA6□□	ST-20E3□□	ST-20E6□□
	ST-30D3□□	ST-30D6□□	ST-30LA3□□	ST-30LA6□□	ST-30HA3□□	ST-30HA6□□	ST-30E3□□	ST-30E6□□
	ST-40D3□□	ST-40D6□□	ST-40LA3□□	ST-40LA6□□	ST-40HA3□□	ST-40HA6□□	ST-40E3□□	ST-40E6□□

Specification

Input Parameter

Control Voltage Range	4-32VDC	90-140VAC	180-280VAC	19.2-28.8VDC/VAC
Minimum Turn-On Voltage	4VDC	90VAC	180VAC	19.2VDC/VAC
Minimum Turn-Off Voltage	1VDC	10VAC	10VAC	2VDC/VAC
Maximum Inout Current	25mA			

Output Parameter

Rated Load Current	10A	20A	30A	40A	10A	20A	30A	40A	10A	20A	30A	40A	
Output Voltage Range	48-280VAC				48-440VAC				48-530VAC				
Maximum. Transient Voltage	600Vpk				800Vpk				1200Vpk				
Maximum Turn-On Time	Random	1ms (DC control)											
	Zero cross	1/2AC Cycle+1ms (DC control)				40ms (AC control)							
Maximum Turn-Off Time	1/2AC Cycle+1ms (DC control)												
Maximum Surge Current[@10ms]	160Apk	500Apk	700Apk	1000Apk	160Apk	500Apk	700Apk	1000Apk	160Apk	500Apk	700Apk	1000Apk	
Max.I ² t for fusing [@10ms]	128	1250	2450	5000	128	1250	2450	5000	128	1250	2450	5000	
Maximum,Off-state Leakage Current (at rated voltage)	5mA												
Max. On-state Voltage Drop. (at rated voltage)	1.7Vr.m.s												
Min.Off-state Dv/dt	500V/μs min												

General

Dielectric Strength (input /output/base)	input to output : 4 KVrms	input to base : 2.5kVrms	output to base : 2.5KVrms
Operating Temperature	-30°C~+80°C		
Storage Temperature	-30°C~+100°C		
Weight	Approx. 170g (10A)	Approx. 240g (20A、30A)	Approx. 400g (40A)

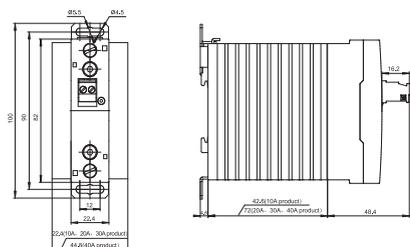
Remark ①

Radiator in the field use to consider the environmental temperature and temperature rise, the radiator temperature cannot exceed 70 degrees, more than 70 degrees need to increase the radiator or increase the radiator fan forced air cooling.

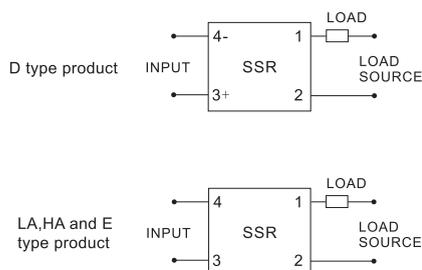
Applications

Plastic machinery, electric injection molding machines, packaging machines, various industrial heating occasions.

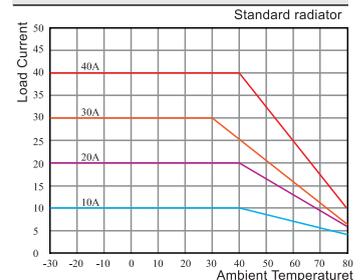
Outline Dimension



Wiring Diagram



Characteristic Curves



Single-phase PCB Type

SPA Series



- Zero-cross or random turn-on (available)
- Load current: 1.2A 1.5A
- DC Input
- Photoelectric isolation
- Dielectric strength 2000V
- Printed circuit board mount
- Burning-proof housing

Description

SPA is a set of SPST-NO AC type solid state relay with small dimension, single in-line printed circuit board mounting. Using surface mount process, it is resistant to high surge current capability. The relay's DC input is compatible with 5VDC, 12VDC and 24VDC logic systems. Optical isolation between input and output, the output in the form of zero-cross turn-on type and random turn-on type.

Model Coding

SPA	1R5	D	2	Z	N
SPA Series	Load Current 1R2: 1.2A 1R5: 1.5A	Control Type LD: 4-6VDC MD: 9.6-14.4VDC HD: 19.2-28.8VDC	Load Voltage 2: 48-280VAC	Zero cross function Z: Zero cross turn-on R: Random turn-on	Input Termination N: Built-in RC Non: Non Built-in RC

Model No.	SPA-1R5LD2ZN	SPA-1R5MD2ZN	SPA-1R5HD2ZN
	SPA-1R2LD2ZN	SPA-1R2MD2ZN	SPA-1R2HD2ZN
	SPA-1R5LD2RN	SPA-1R5MD2RN	SPA-1R5HD2RN

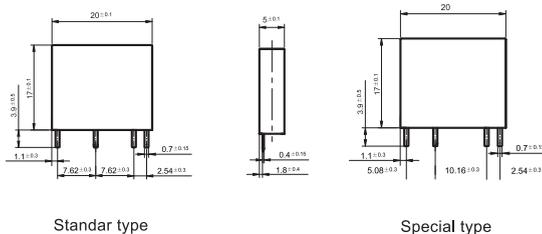
Specification

Input Parameter	LD	MD	HD
Control Voltage Range	4-6 VDC	9.6-14.4VDC	19.2-28.8VDC
Minimum Turn-On Voltage	4VDC	9.6VDC	19.2VDC
Minimum Turn-Off Voltage		1VDC	
Maximum Inout Current		20mA	
Output Parameter			
Rated Load Current		1.5A	
Output Voltage Range		48-280VAC	
Maximum. Transient Voltage		600Vpk	
Maximum Turn-On Time	Random	1ms	
	Zero cross	1/2AC Cycle + 1ms	
Maximum Turn-Off Time		1/2AC Cycle + 1ms	
Maximum Surge Current[@10ms]		25A	
Max.I ² t for fusing [@10ms]		3.1A ² S	
Maximum Off-state Leakage Current (at rated voltage)		1.5mA	
Max. On-state Voltage Drop. (at rated voltage)		1.5Vrms	
Min.Off-state Dv/dt		200V/μs min	
General			
Dielectric Strength (input /output/base)		2000VAC, 50/60Hz, 1min.	
Operating Temperature		-30°C ~ +80°C	
Storage Temperature		-30°C ~ +100°C	
Weight		Approx. 3.5g	

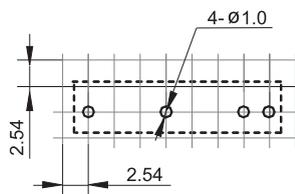
Applications

suitable for electromagnetic valves, motors, incandescent control.

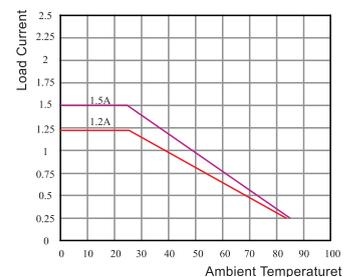
Outline Dimension



Mounting Dimension



Characteristic Curves



Single-phase PCB Type

SPB Series



- Zero-cross or random turn-on (available)
- Load current: 2A
- DC Input
- Photoelectric isolation
- Dielectric strength 2500V
- Printed circuit board mount
- Burning-proof housing

Description

SPB is a set of SPST-NO AC type solid state relay with small dimension, single in-line printed circuit board mounting. Using surface mount process, it is resistant to high surge current capability. The relay's DC input is compatible with 5VDC, 12VDC and 24VDC logic systems. Optical isolation between input and output, the output in the form of zero-cross turn-on type and random turn-on type.

Model Coding

SPB	2	LD	2	Z	M
SPB Series	Load Current 2 : 2 A	Control Type LD: 4-6VDC MD: 9.6-14.4VDC HD: 19.2-28.8VDC	Load Voltage 2: 48-280VAC	Zero cross function Z: Zero cross turn-on R: Random turn-on	Input Termination T: T type Pin M: M type Pin

Model No.	SPB-2LD2ZM	SPB-2MD2ZM	SPB-2HD2ZM
	SPB-2LD2RM	SPB-2MD2RM	SPB-2HD2RM

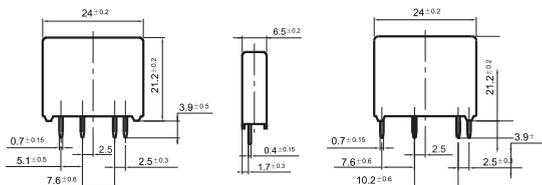
Specification

Input Parameter	LD	MD	HD
Control Voltage Range	4-6 VDC	9.6-14.4VDC	19.2-28.8VDC
Minimum Turn-On Voltage	4VDC	9.6VDC	19.2VDC
Minimum Turn-Off Voltage		1VDC	
Maximum Inout Current		20mA	
Output Parameter			
Rated Load Current	2A		
Output Voltage Range	48-280VAC		
Maximum. Transient Voltage	600Vpk		
Maximum Turn-On Time	Random	1ms	
	Zero cross	1/2AC Cycle + 1ms	
Maximum Turn-Off Time	1/2AC Cycle + 1ms		
Maximum Surge Current[@10ms]	25A		
Max.I ² t for fusing [@10ms]	3.1A ² S		
Maximum Off-state Leakage Current (at rated voltage)	1.5mA		
Max. On-state Voltage Drop. (at rated voltage)	1.5Vrms		
Min.Off-state Dv/dt	200V/μs		
General			
Dielectric Strength (input /output/base)	2500VAC,50/60Hz,1min.		
Operating Temperature	-30°C~+80°C		
Storage Temperature	-30°C~+100°C		
Weight	Approx. 6g		

Applications

suitable for electromagnetic valves, motors, incandescent control.

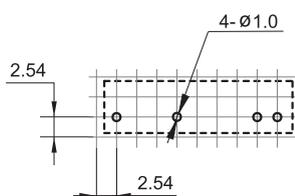
Outline Dimension



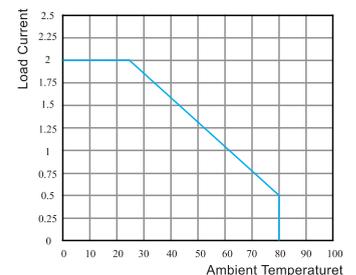
T type Pin-out

M type Pin-out

Mounting Dimension



Characteristic Curves



Single-phase PCB Type

SPC Series



- Zero-cross or random turn-on (available)
- Load current: 2A、3A
- DC Input
- Photoelectric isolation
- Dielectric strength 2500V
- Printed circuit board mount
- Burning-proof housing

Description

SPC is a SPST-NO, with small dimension, double in-line printed circuit board mount SSR provides AC output switching in a high density package. Using surface mount process, built-in heat sink. It is widely used in various DC motors, DC power supply, electromagnetic devices and intelligent instruments in the field of industrial automation. The relay's DC input is compatible with 5VDC, 12VDC and 24VDC logic systems. The relays include a LED indicator to provide input status information. Rated load current is 2A, 3A, rated load voltage is 220VAC, 380VAC.

Model Coding

SPC	2	LD	2	Z	L
SPC Series	Load Current 2: 2 A 3: 3 A	Control Type LD: 4-6 VDC MD: 9.6-14.4 VDC HD: 19.2-28.8 VDC	Load Voltage 2: 48-280 VAC 3: 48-440 VAC 50D: 3-50 VDC	Zero cross function Z: Zero cross turn-on R: Random turn-on Non: DC load	Indicator L: LED

Model No.	SPC-2LD2ZL	SPC-2MD2ZL	SPC-2HD2ZL
	SPC-3LD2ZL	SPC-3MD2ZL	SPC-3HD2ZL
	SPC-2LD50DL	SPC-2MD50DL	SPC-2HD50DL
	SPC-2LD2RL	SPC-2MD2RL	SPC-2HD2RL
	SPC-3LD2RL	SPC-3MD2RL	SPC-3HD2RL

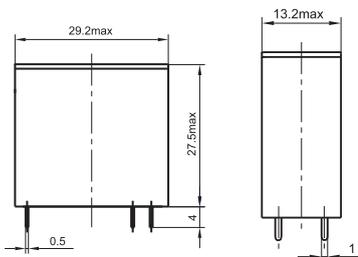
Specification

Input Parameter	LD	MD	HD
Control Voltage Range	4-6 VDC	9.6-14.4VDC	19.2-28.8VDC
Minimum Turn-On Voltage	4VDC	9.6VDC	19.2VDC
Minimum Turn-Off Voltage		1VDC	
Maximum Inout Current		20mA	
Output Parameter			
Rated Load Current	2A/3A		
Output Voltage Range	48-280VAC (AC load voltage) 3-50VDC (DC load voltage)		
Maximum. Transient Voltage	□D2□: 600Vpk □D3□: 800Vpk □D50DL: 50Vpk		
Maximum Turn-On Time	Random	1ms	
	Zero cross	1/2AC Cycle + 1ms	
Maximum Turn-Off Time	1/2AC Cycle + 1ms		
Maximum Surge Current [@10ms]	2□□ZL: 25A 3□□ZL: 120A		
Max. I ² t for fusing [@10ms]	2□□ZL: 3.1A ² S 3□□ZL: 78A ² S		
Maximum Off-state Leakage Current (at rated voltage)	1.5mA		
Max. On-state Voltage Drop. (at rated voltage)	1.5Vrms		
Min. Off-state Dv/dt	100V/μs		
General			
Dielectric Strength (input/output/base)	2500VAC, 50/60Hz, 1min.		
Operating Temperature	-30°C ~ +80°C		
Storage Temperature	-30°C ~ +100°C		
Weight	Approx. 18g		

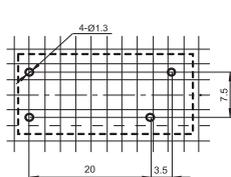
Applications

It is suitable for corrosion, humidity and explosion protection.

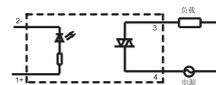
Outline Dimension



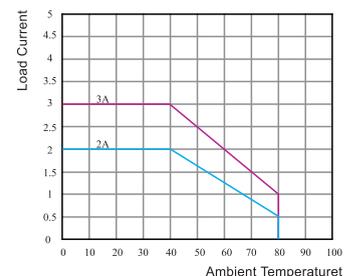
Mounting Dimension



Wiring Diagram



Characteristic Curves



Single-phase PCB Type

SPD Series



- Zero-cross or random turn-on (available)
- Load current: 2A、3A
- DC Input
- Photoelectric isolation
- Dielectric strength 4000V
- Printed circuit board mount
- Burning-proof housing

Description

SPD is a set of SPST-NO type solid state relay with small dimension. Single in-line PCB package, Dielectric strength 4000V, it is resistant to high surge current capability, It ensures the reliability of the product in complex and bad environment.

Model Coding

SPD	2	LD	2	Z
SPC Series	Load Current 2: 2 A 3: 3 A	Control Type LD: 4-6VDC MD: 9.6-14.4VDC HD: 19.2-28.8VDC	Load Voltage 2: 48-280VAC 3: 48-440VAC 50D: 3-50VDC	Zero cross function Z: Zero cross turn-on R: Random turn-on Non: DC load

Model No.	SPD-2LD2Z	SPD-2MD2Z	SPD-2HD2Z
	SPD-2LD50D	SPD-2MD50D	SPD-2HD50D
	SPD-3LD2Z	SPD-3MD2Z	SPD-3HD2Z
	SPD-3LD2R	SPD-3MD2R	SPD-3HD2R
	SPD-2LD2Z	SPD-2MD2R	SPD-2HD2R

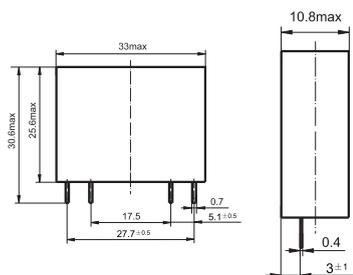
Specification

Input Parameter	LD	MD	HD
Control Voltage Range	4-6 VDC	9.6-14.4VDC	19.2-28.8VDC
Minimum Turn-On Voltage	4VDC	9.6VDC	19.2VDC
Minimum Turn-Off Voltage		1VDC	
Maximum Inout Current		20mA	
Output Parameter			
Rated Load Current	D2Z2: 2A D2Z3: 3A		
Output Voltage Range	48-280VAC (AC load voltage) 3-50VDC (DC load voltage)		
Maximum Transient Voltage	□D2□: 600Vpk □D3□: 800Vpk □D50DL: 50Vpk		
Maximum Turn-On Time	Random	1ms	
	Zero cross	1/2AC Cycle + 1ms	
Maximum Turn-Off Time	1/2AC Cycle + 1ms		
Maximum Surge Current[@10ms]	2□□Z: 25A 3□□Z: 120A		
Max.I ² t for fusing [@10ms]	2□□Z: 3.1A ² S 3□□Z: 78A ² S		
Maximum Off-state Leakage Current (at rated voltage)	5mA		
Max. On-state Voltage Drop. (at rated voltage)	1.5Vrms		
Min. Off-state Dv/dt	200V/μs		
General			
Dielectric Strength (input/output/base)	4000VAC, 50/60Hz, 1min.		
Operating Temperature	-30°C ~ +80°C		
Storage Temperature	-30°C ~ +100°C		
Weight	约20g		

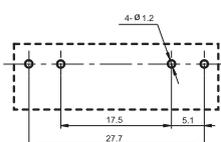
Applications

Suitable for electromagnetic valve, stage-lighting control, motor forward and reverse control, heating machine, automat, medical equipments, elevator, power door, and etc.

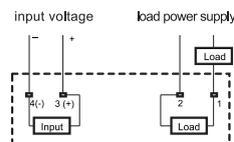
Outline Dimension



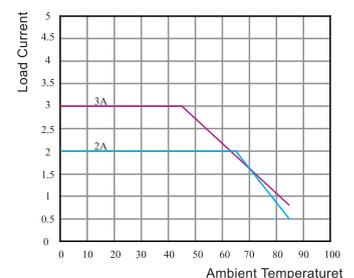
Mounting Dimension



Wiring Diagram



Characteristic Curves



Single-phase PCB Type

SPE Series



- Zero-cross or random turn-on (available)
- Load current: 0.1A, 1-5A
- DC Input
- Photoelectric isolation
- Dielectric strength 2500V
- Printed circuit board mount
- Burning-proof housing

Description

SPE is a SPST-NO SSR with small dimensions. With DC input control, compatible with 5VDC, 12VDC, 24VDC and 48VDC logic systems. The relays provide opto-isolation between input and output.

Model Coding

SPE	1	LD	2	Z	N	Y	H
SPC Series	Load Current	Control Type	Load Voltage	Zero cross function	RC net	Over-voltage protection	Mounting Mode
	1: 1 A 2: 2 A 3: 3 A 4: 4 A 5: 5 A 01: 0.1 A	LD: 4-6VDC MD: 9.6-14.4VDC HD: 19.2-28.8VDC	2: 48-280VAC 3: 48-380VAC 24D: 3-24VDC 48D: 3-48VDC	Z: Zero cross turn-on R: Random turn-on Non: DC load	N: Without RC Non: Built-in RC	Y: With MOV Non: Without MOV	H: Vertical type Non: Horizontal type

Model No.	SPE-1LD2ZN	SPE-1LD2RN	SPE-3LD24D	SPE-4LD48D
	SPE-1MD2ZN	SPE-1MD2RN	SPE-3MD24D	SPE-4MD48D
	SPE-1HD2ZN	SPE-1HD2RN	SPE-3HD24D	SPE-4HD48D
	SPE-01LD48D	SPE-2LD2ZN	SPE-2LD2ZNY	SPE-5LD48DH
	SPE-01MD48D	SPE-2MD2ZN	SPE-2MD2ZNY	SPE-5MD48DH
	SPE-01HD48D	SPE-2HD2ZN	SPE-2HD2ZNY	SPE-5HD48DH

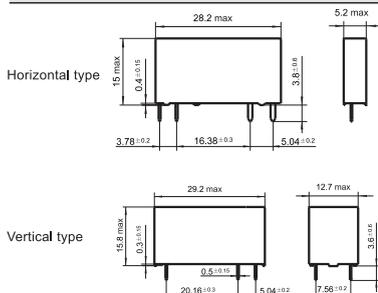
Specification

Input Parameter	LD	MD	HD
Control Voltage Range	4-6 VDC	9.6-14.4VDC	19.2-28.8VDC
Minimum Turn-On Voltage	4VDC	9.6VDC	19.2VDC
Minimum Turn-Off Voltage	1VDC		
Maximum Inout Current	20mA		
Output Parameter			
Output Voltage Range	48-280VAC (AC load input)		
Maximum. Transient Voltage	600Vpk (AC load)		
Maximum Turn-On Time	Random	1ms	
	Zero cross	1/2AC Cycle + 1ms	
Maximum Turn-Off Time	Random	1ms	
	Zero cross	1/2AC Cycle + 1ms	
Maximum Off-state Leakage Current (at rated voltage)	1.5mA		
Max. On-state Voltage Drop. (at rated voltage)	1.5Vrms		
Min. Off-state Dv/dt	100V/μs min		
General			
Dielectric Strength (input /output/base)	2500VAC, 50/60Hz, 1min.		
Operating Temperature	-30°C ~ +80°C		
Storage Temperature	-30°C ~ +100°C		
Weight	Approx. 4g		

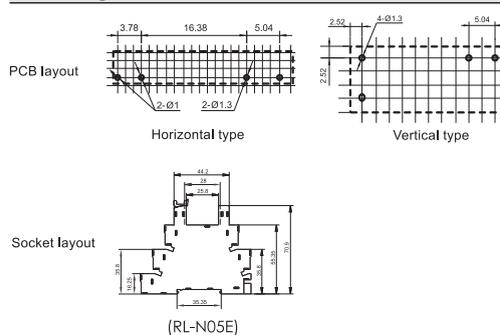
Applications

Provides for PCB assembly or socket mount occasion, especially for some high density mounting applications.

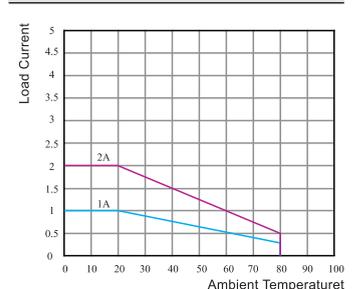
Outline Dimension



Mounting Dimension



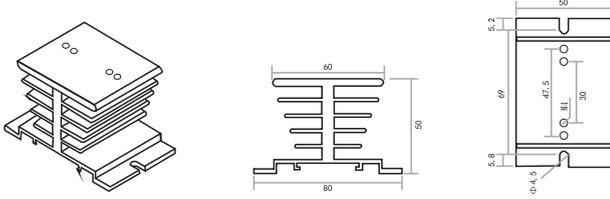
Characteristic Curves



SSR Accessories

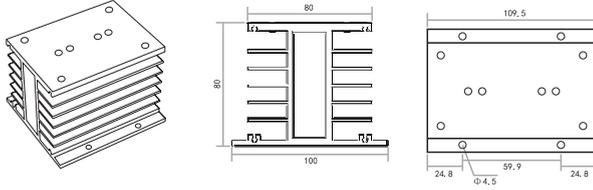
Model No. : SH-01

Weight: 110g Thermal Resistance: 2.1°C/W



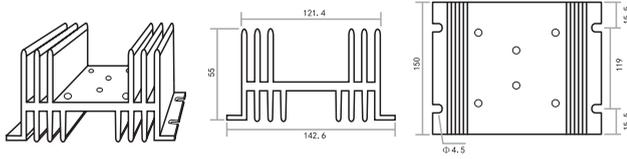
Model No. : SH-03

Weight: 570g Thermal Resistance: 0.9°C/W

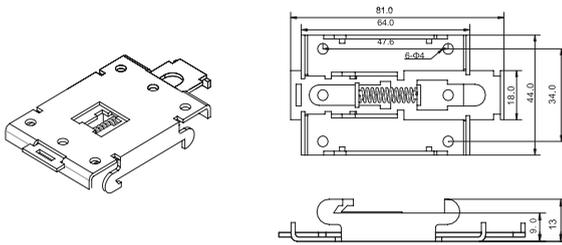


Model No. : SH-05

Weight: 590g Thermal Resistance: 0.6°C/W



Model No. : DIN-01



Heat Transfer Pad

Model No.: SH-D1

Thermal Resistance: 0.48°C/25W



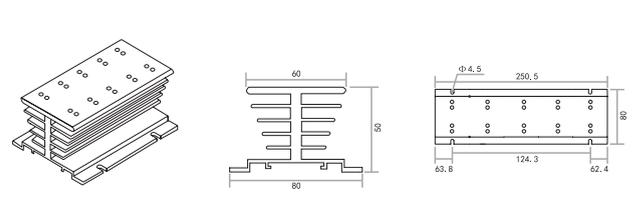
Model No.: SH-D2

Thermal Resistance: 0.48°C/25W



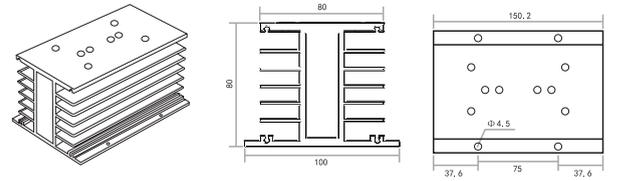
Model No. : SH-06

Weight: 600g Thermal Resistance: 0.8°C/W



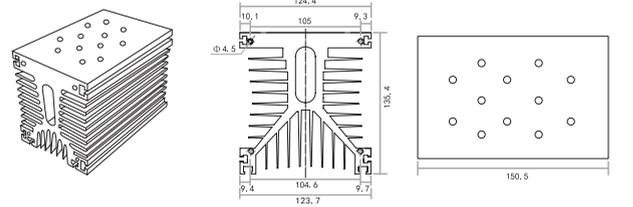
Model No. : SH-07

Weight: 780g Thermal Resistance: 0.45°C/W



Model No. : SH-08

Weight: 2980g Thermal Resistance: 0.3°C/W



PROTECTIVE COVER

Model No.: SP-D11



Model No.: SP-D12



Model No.: SP-D31

