Solid State Relay
MSR-SIM Series Single Phase AC Output

MeK-Tronics

- **Zero-crossing or Random-on Switching**
- **Rated Load Current: 10A, 16A, 25A**
- **With LED Indication**
- **Internal RC Protection Circuit**
- **MOV Protection (Optional)**

Product Description

SIM series industrial single phase relay with triac output is widely used in industry applications. The relay can be used for resistive, inductive or capacitive load. The control voltage is 4-32VDC, output current is rated at 10A, 16A or 25A.

Product Selection

MSR	—	SIM	240	D	25	R	W	-L	Q
Packaging - : Bulk Packaging Y: Individual		SIM Series	Load Voltage 240:240VAC 380:380VAC	Control Voltage Type D:DC Control	Load Current 10:10Amp 16:16Amp 25:25Amp	Switching Mode Z:Zero Crossing R:Random-on	Control Voltage W:4-32VDC	LED Indication Blank: Without L: With LED	Terminal Type Blank: Screw Q:Quick Connection

Technical Specification

INPUT CIRCUIT		
Control Voltage Range	W	4-32VDC
Must Turn-on Voltage		4VDC
Must Turn-off Voltage		1VDC
Maximum Input Current		25mA
OUTPUT CIRCUIT		
Load Voltage Range	240VAC	24-280VAC
	380VAC	24-440VAC
Maximum Turn-On Time	Random-on	1ms
	Zero Crossing	10ms
Maximum Turn-Off Time		10ms
Maximum Surge Current [@10 ms]	10A	100A
	16A	160A
	25A	250A

OUTPUT CIRCUIT		
Transient Overvoltage	240VAC	600Vpk
	380VAC	800Vpk
Maximum Transient Overvoltage		600Vpk
Maximum Off-State Leakage Current [@ Rated Voltage]		5mA
Maximum On-State Voltage Drop [@ Rated Current]		1.5Vrms
Minimum Off-State dv/dt [@ Maximum Rated Voltage]		200V/µs
GENERAL INFORMATION		
Dielectric Strength (50/60Hz)	Input/Output	4000Vrms
	Input,Output/Base	2500Vrms
Power Factor		>0.5
Ambient Operating Temperature Range		-30˚C +80˚C
Ambient Storage Temperature Range		-30˚C +100˚C
Weight (Typical)		35g

Installation

Typical

Q: QC

Wiring Diagram

Thermal Curve

10A graph — Load Current (Arms) vs Ambient Temperature (°C): 2.8°C/W, Without heat

16A graph — Load Current (Arms) vs Ambient Temperature (°C): 2.1°C/W, 2.8°C/W, Without heat sink

25A graph — Load Current (Arms) vs Ambient Temperature (°C): 1.6°C/W, 2.8°C/W, Without heat sink
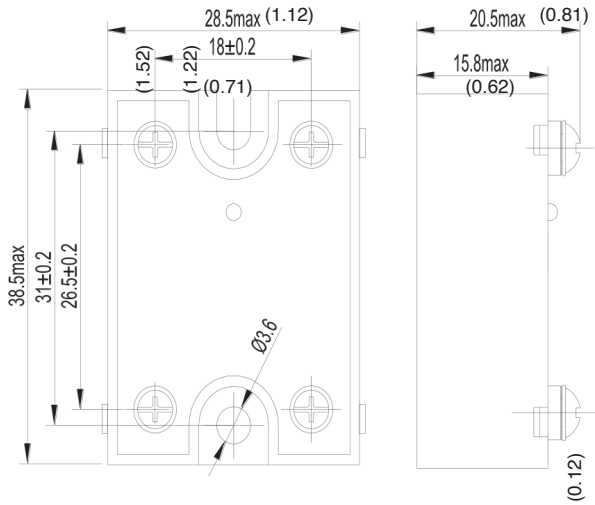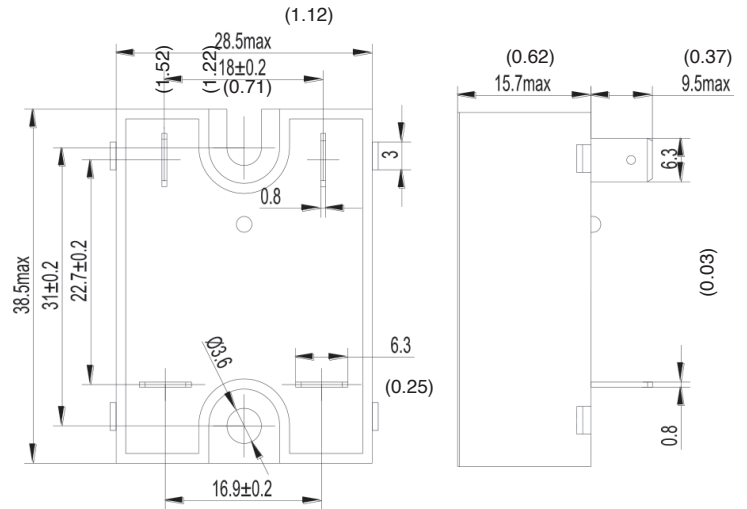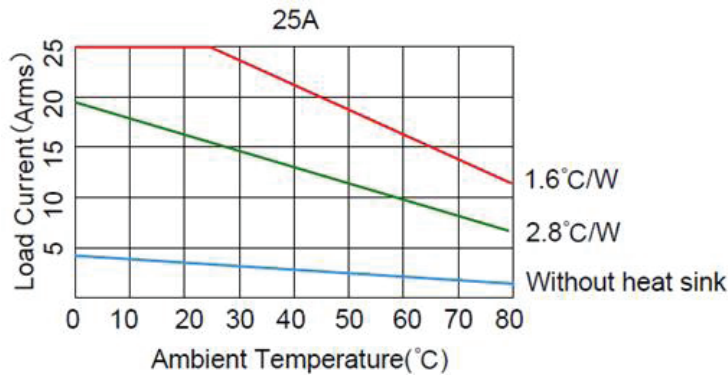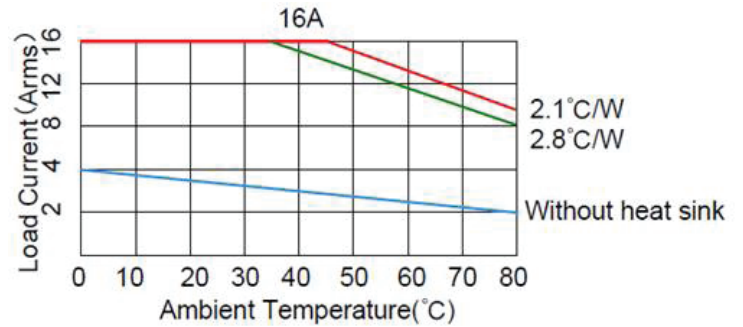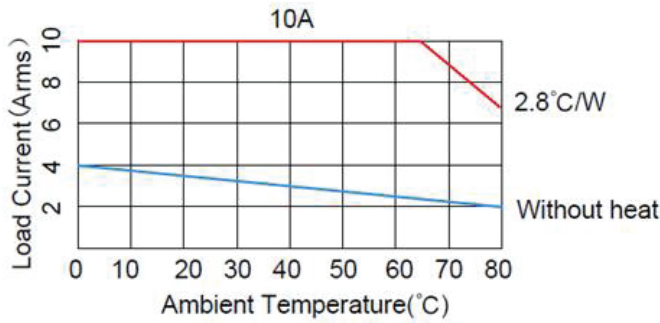
Attentions:

1. When the ambient temperature is over 40°C or many SIM series are installed closely together, the user should take load discount into account according to the thermal curve.

2. If the load current is over 3A, suitable heatsink should be added to the SSR.

Product Certification

CE   c UL us   RoHS   CCC

Note: (1) No CCC for the product with TVS