Solid State Relay
MSR-SC Series Single Phase AC Output

MeK-Tronics

Product Data Sheet

- **Opto-isolation**
- **Load Current:0.1A-2A @24-280VAC**
- **Control Current :10mA or Control Voltage:5VDC,12VDC,24VDC**
- **Dielectric Strength:2500VACrms**
- **TRIAC Output**
- **PCB Mounted**
- **RoHS Compliant**

Product Description

MSR-SC series is printed board mounted solid state relay. Control current is 10mA or control voltage is 5VDC, 12VDC or 24VDC, load voltage is 240VAC. Optoisolation between input and output, zero crossing and random-on output mode available.

Product Selection

MSR	—	SC	240	D	2	Z	-N	F
	Packing: - : Bulk Packing A-Z	SC Series	Load Voltage 240: 240VAC	Control Voltage Type D:DC Control	Load Current 1:1Amp 2:2Amp	Switching Mode Z:Zero Crossing R:Random	Control Voltage/ Current N:5VDC P:12VDC R:24VDC C:10mA	Pin Layout Blank: Standard F:T Type Footprint

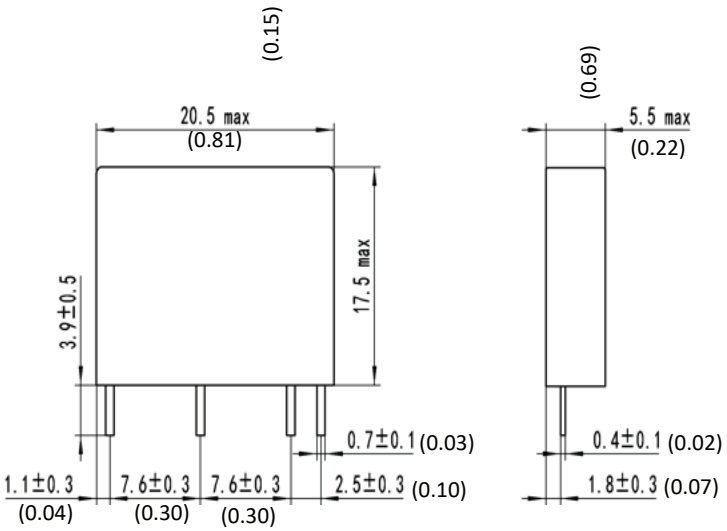
INPUT CIRCUIT		
Control Voltage Range	5	4~6VDC
	12	9.6~14.4VDC
	24	19.2~28.8VDC
Must Turn-on Voltage	5	4VDC
	12	9.6VDC
	24	19.2VDC
Must Turn-off Voltage	5/12/24	1.0VDC
Maximum Input Current	5/12/24	25mA (@max. input Voltage)

OUTPUT CIRCUIT		
Load Voltage Range		24~280VAC
Transient Overvoltage		600Vpk
Maximum Surge Current [@10 ms]	1A	25Apk
	2A	35Apk
Maximum Turn-on Time	Random-On	1ms
	Zero Crossing	10ms
Maximum Turn-off Time		10ms
Load Current Range	1A	0.1~1A
	2A	0.1~2A
Maximum Off-state Leakage Current [@ Rated Voltage]		0.1~2A
Maximum On-state Voltage Drop [@ Rated Current]		1.5Vrms
Minimum Off-state dv/dt [@ Maximum Rated Voltage]		200V/μs
Operational Frequency Range		47-63Hz
Minimum Power Factor (@ Maximum load)		0.5
GENERAL INFORMATION		
Dielectric Strength, Input/Output[50/60Hz]		2500VACrms
Insulation Resistance		1000MΩ(@500VDC)
Ambient Operating Temperature Range		-30˚C +80˚C
Weight [Typical]		3g

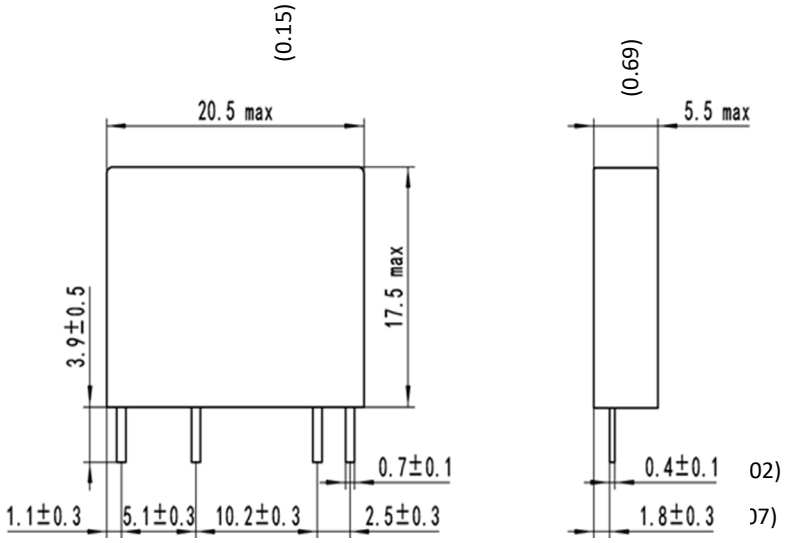
Application Note:

Suitable for pumps, valve control, motor control and etc.

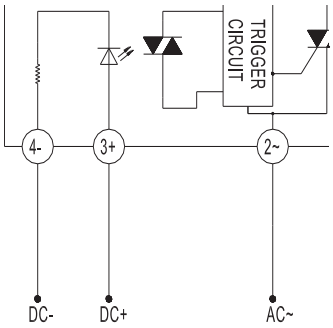
A) Standard Footprint



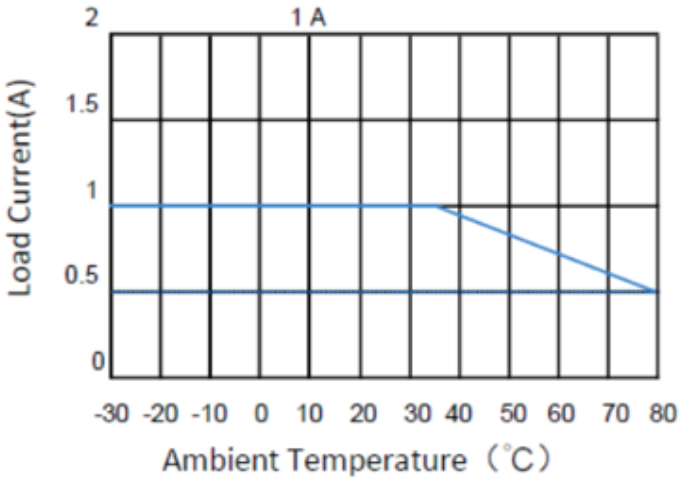
B) T Type Footprint

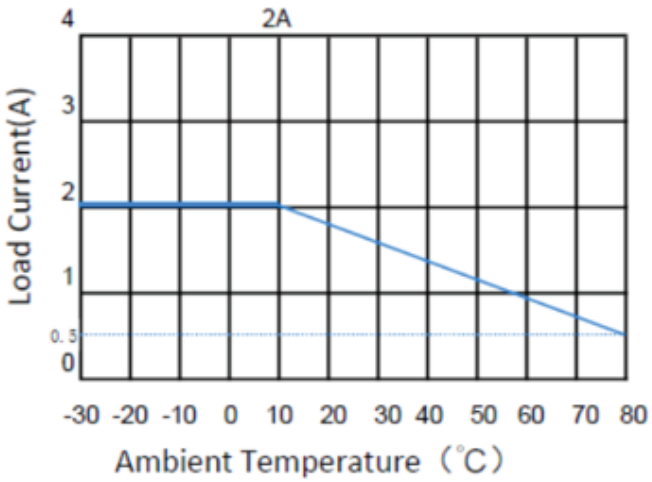


Wiring Diagram



Thermal Curve





Important Notice

1. Soldering must be finished within 10 seconds at 260˚C,or finished within 5 seconds at 350˚C. Otherwise it may cause damage to the relay.
2. Terminal polarity must be observed. Otherwise it may cause damage to the relay.
3. When ambient temperature is above 25˚C, the maximum load current decreases. See thermal derating curve.

Product Certification

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