

# Solid State Relay MSR-SD Series Single Phase AC Output

## Product Data Sheet



- Zero crossing or random-on switching
- Ratings from 3A,5A @ 24-530VAC
- Control voltage: 4-15VDC, 15-32VDC And 4-32VDC
- Opto-isolation: 4000VACrms
- TRIAC output(3A) or SCR output(5A)
- RoHS compliant

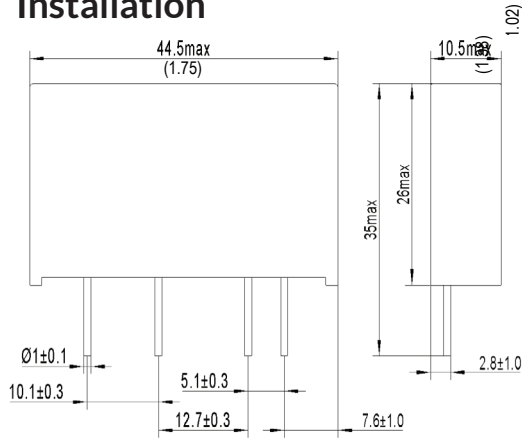
MSR	-	SD	380	D	5	Z	R	L
	Packing: - : Bulk Packing A-Z	SD Series	Load Voltage 240:240VAC 380:380VAC 480:480VAC	Control Voltage D:DC Control	Load Current 3:3Amp 5:5Amp	Switching Mode Z:Zero crossing R:Random-on	Control Voltage/ Current N:5VDC P:12VDC R:24VDC C:10mA	Other L:4-15VDC H:15-32VDC W:4-32VDC

INPUT CIRCUIT (TA=25°C)		
Control Voltage Range	-L	4-15VDC
	-H	15-32VDC
	-W	4-32VDC
Must Turn-on Voltage	-L	4VDC
	-H	15VDC
	-W	4VDC
Must Turn-off Voltage	-H	5VDC
	-L,-W	1VDC
Maximum Input Current	5/12/24	25mA (@max. input Voltage)

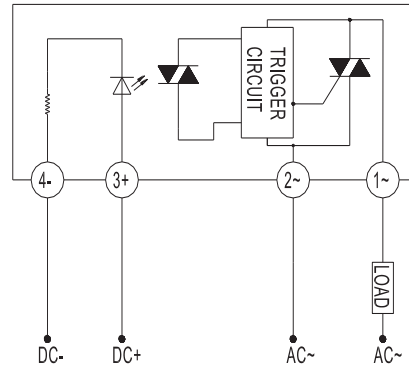
### Product Data Sheet

OUTPUT CIRCUIT (TA=25°C)		
Load Voltage Range	240VAC	24~280VAC
	380VAC	24~440VAC
	480VAC	24~530VAC
Transient Overvoltage	240VAC	600Vpk
	380VAC	800Vpk
	480VAC	1200Vpk
Load Current Range	3A	0.1~1A
	5A	0.1~5A
Maximum Turn-On Time	Random-On	1ms
	Zero Crossing	10ms
Maximum Turn-Off Time		10ms
Maximum Surge Current [@10 ms]	3A	160A
	5A	250A
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]	3A	200V/μs
	5A	500V/μs
GENERAL INFORMATION (TA=25°C)		
Dielectric Strength, Input/Output[50/60Hz]		400VACrms
Insulation Resistance (@500VDC)		1000MΩ(@500VDC)
Ambient Operating Temperature Range		-30°C +80°C
Ambient Storage Temperature Range		-30°C +80°C
Weight [Typical]		20g

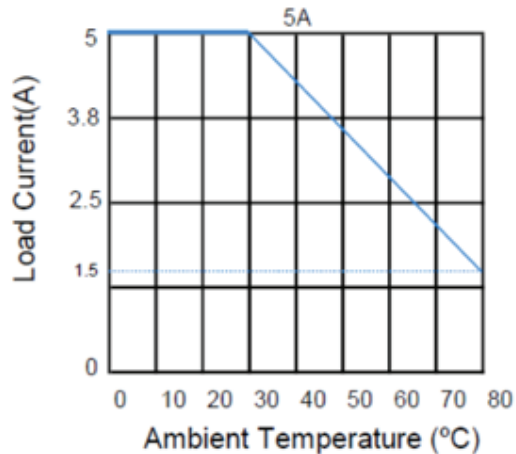
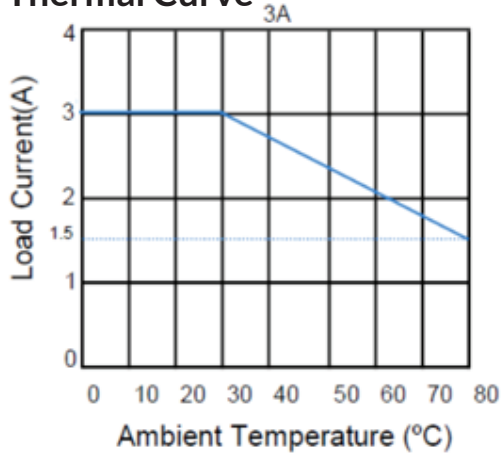
## Installation



## 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

