

# Solid State Relay

## MSR-SL Series Single Phase DC Output

### Product Data Sheet



- MOSFET Output
- Control Voltage: 3-10VDC, 10-28VDC
- Load Voltage: 60VDC, 100VDC, 200VDC, 400VDC
- Load Current: 20A
- Dielectric Strength: 2500Vrms
- RoHS Compliant

MSR	—	SL	60	D	20	E
	Packing: - : Bulk Packing A-Z	MSR-SL Series	Load Voltage 60:60VDC 100:100VDC 200:200VDC 400:400VDC	Control Voltage D:DC Control	Load Current 3:3Amp 5:5Amp 10:10Amp 20:20Amp	Control Voltage E:3-10VDC G:10-28VDC

#### NOTE: PART NUMBERS ARE AS FOLLOWS

3A	5A	10A	20A
MSR-SL400D3E	MSR-SL200D5E	MSR-SL100D10E	MSR-SL60D20E
MSR-SL400D3G	MSR-SL200D5G	MSR-SL100D10G	MSR-SL60D20G

## Technical Specification

INPUT CIRCUIT(TA=25°C)		
Control Voltage Range	E	3-10VDC
	G	10-28VDC
Maximum Turn-on Time	E	3VDC
	G	10VDC
Must Turn-Off Voltage		1VDC
Maximum Input Current		25mA

OUTPUT CIRCUIT(TA=25°C)		
Load Voltage Range	60	0-50VDC
	100	0-75VDC
	200	0-125VDC
	400	0-300VDC

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OUTPUT CIRCUIT(TA=25°C)			
Maximum Transient Overvoltage	60		100Vpk
	100		150Vpk
	200		250Vpk
	400		600Vpk
TVS Protection Voltage (Typical)	60		64.6~71.4VDC
	100		105~116VDC
	200		190-210VDC
	400		418-462VDC
Maximum 1 Cycle Surge Current (50Hz)	3A		15A
	5A		25A
	10A		50A
	20A		100A
Maximum Turn-On Time			6ms
Maximum Turn-Off Time			1ms
Maximum Off-State Leakage Current [@ Rated Voltage]			0.1mA
Maximum On-State Resistance	3A	Typical = 25°C	135mΩ
		Max = 125°C	375mΩ
	5A	Typical = 25°C	60mΩ
		Max = 125°C	150mΩ
	10A	Typical = 25°C	11mΩ
		Max = 125°C	38mΩ
20A	Typical = 25°C	3.7mΩ	
	Max = 125°C	10mΩ	

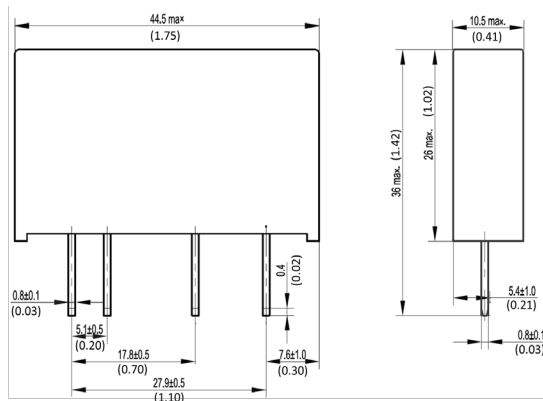
GENERAL INFORMATION (TA=25°C)	
Dielectric Strength, Input/Output (50/60Hz)	2500Vrms
Insulation Resistance(@500VDC)	1000MΩ
Ambient Temperature Range	-30°C ~ +80°C
Storage Temperature Range	-30°C ~ +100°C
Weight (typical)	20g

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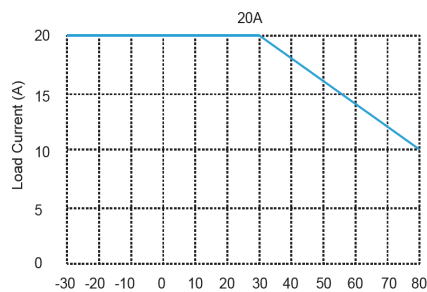
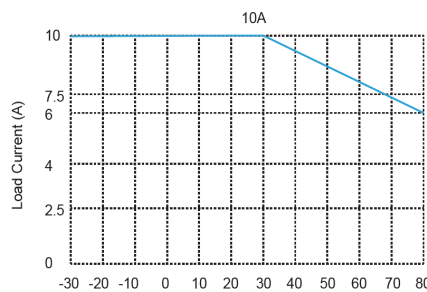
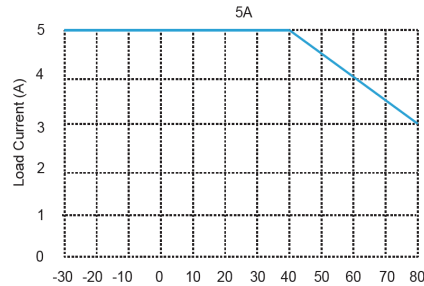
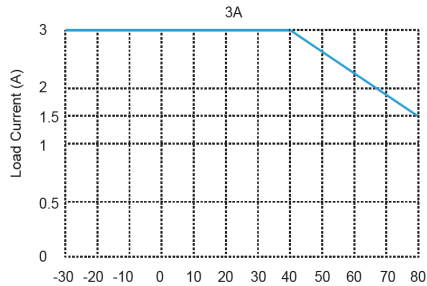
### Application Note:

Suitable for DC motors, DC power supplies, electro-mechanical devices, etc...

### Dimensions:



### 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.

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