

## FEATURES

- Dielectric strength 2500Vrms
- Blocking voltage 80V
- Bipolar transistor output
- Photo isolation
- Led status indicator

## DESCRIPTION

This SPST-NO printed circuit board mount SSR provides DC output switching in a high density package. The MS1's DC input is compatible with 5, 12 and 24V logic systems. The relays include a LED indicator to provide input status information. The relays provide 2500Vrms opto-isolation, between input and output. Encapsulation, thermally conductive epoxy.

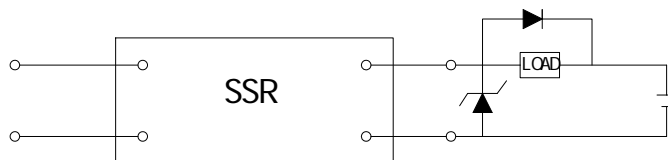
## APPLICATIONS

- I/O interface
- Programmable controllers

## PRECAUTIONS

1. Soldering must be completed within 10 seconds at 260°C or less or within 5 seconds at 350°C or less.
2. The SSR case serves to dissipate heat. Install the relays so that they are adequately ventilated. If poor ventilation is unavoidable, reduce the load current by half.
3. When using the MS1 series for a DC load with a peak voltage of more than 80V, connect the load terminals of the relay to an inrush absorber (varistor).
4. Before connecting a load that generates a high surge current, such as a lamp load to the SSR, make sure that the SSR can withstand the surge current of the load.
5. The product data sheet shows the non-repetitive peak value of the surge current that flows through the SSR. Normally, use 1/2 the non-repetitive peak surge current as the standard value.

If a surge current exceeding that value is expected, connect a quick-blowing fuse to protect the SSR.



# MS1

# MASSUSE RELAY

## INPUT (TA=25°C)

Control voltage range	05D	4 to 6VDC
	12D	9.6 to 14.4VDC
	24D	19.2 to 28.8VDC
Must operate voltage	05D	4VDC max.
	12D	9.6VDC max.
	24D	19.2VDC max.
Must release voltage	1.0VDC	
Max. reverse protection voltage	05D	-6VDC
	12D	-14.4VDC
	24D	-28.8VDC
Typical Input current	12mA	

## GENERAL

Insulation resistance	1000MΩ min., (at 500VDC)
Dielectric strength (input to output)	2500VAC min, 50/60Hz 1min.
Max. capacitance (input to output)	8pF
Ambient Humidity	45 to 85%
Shock durability	1000m/s <sup>2</sup>
Ambient temperature	Operating: - 30°C to +80°C Storage: - 30°C to +100°C

## OUTPUT

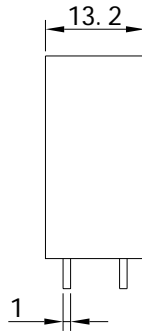
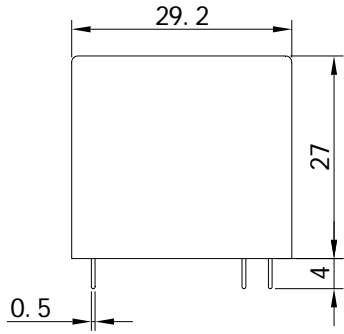
Load voltage range	3 to 52.8VDC
Load current range	0.01 to 2ADC
Max. surge current (10ms)	8ADC
Max. leakage current	0.1mAdc max.
Max. on-state voltage drop	1.5VDC max.
Max. turn-on time	1ms max.
Max. turn-off time	1ms max.
Transient overvoltage	80Vpk max.

## ORDERING INFORMATION

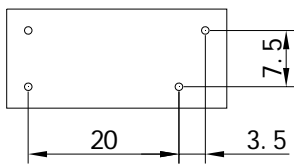
MS1    -    12    -    50    D    2    T    L

Model No.	Input Voltage	Load Voltage	Load Voltage Form	Load Current	Output Component	Led Indicator
MS1	05: 4 to 6VDC 12: 9.6 to 14.4VDC 24: 19.2 to 28.8VDC	50: 50V	D: DC	2: 2 Amp	T: Transistor	L: With led Nil: Without led

Dimensions(unit: mm)



PCB Layout



Schematic

