

# MD1S THRU MD7S

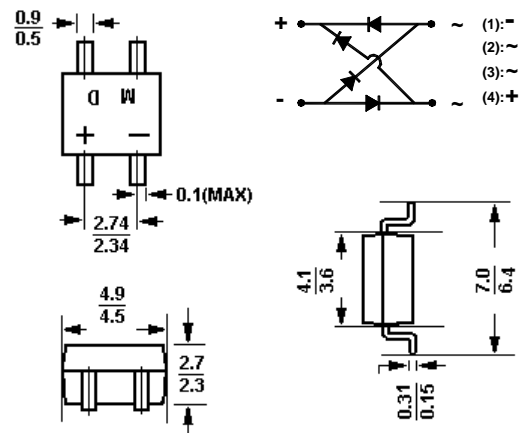
**Miniature Glass Passivated Single Phase Surface Mount Bridge Rectifier**  
**Reverse Voltage – 50 to 1000 Volts**  
**Forward Current – 0.5 Ampere**

## Features

- Surge overload rating: 30 amperes peak
- Ideal for printed circuit board
- Low leakage
- Reliable low cost construction utilizing molded
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O

## Mechanical Data

- **Case:** MD-S, molded plastic.
- **Terminals:** Leads solderable per MIL-STD-202, method 208.
- **Mounting position:** Any.
- **Weight:** 0.008 ounce, 0.22 grams.



Dimensions in mm

## Absolute Maximum Ratings and Characteristics

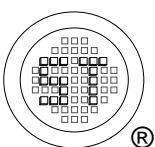
Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

	Symbols	MD1S	MD2S	MD3S	MD4S	MD5S	MD6S	MD7S	Units
Maximum recurrent peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward rectified current See Fig .1      On glass epoxy P.C.B <sup>2)</sup> On aluminum substrate <sup>3)</sup>	$I_{(AV)}$	0.5 0.8							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	30							A
Maximum forward voltage at 0.4A DC	$V_F$	1.0							V
Maximum reverse current                      @T <sub>A</sub> = 25 °C at rated DC blocking voltage                @T <sub>A</sub> = 125 °C	$I_R$	5.0 500							μA
Typical junction capacitance <sup>1)</sup>	$C_J$	15							pF
Typical thermal resistance <sup>3)</sup>	$R_{\theta JA}$	76							°C/W
Typical thermal resistance <sup>2)</sup>	$R_{\theta JL}$	20							°C/W
Operating and storage temperature range	$T_J, T_{Stg}$	-55 to +150							°C

<sup>1)</sup> Measured at 1 MHz and applied  $V_r = 4$  volts.

<sup>2)</sup> On glass epoxy P.C.B. mounted on 0.05 x 0.05" (1.3 x 1.3 mm) pads.

<sup>3)</sup> On aluminum substrate P.C.B. with an area of 0.8 x 0.8" (20 x 20mm) mounted on 0.05 x 0.05" (1.3 x 1.3mm) solder pad.

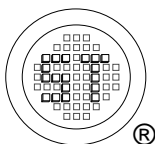
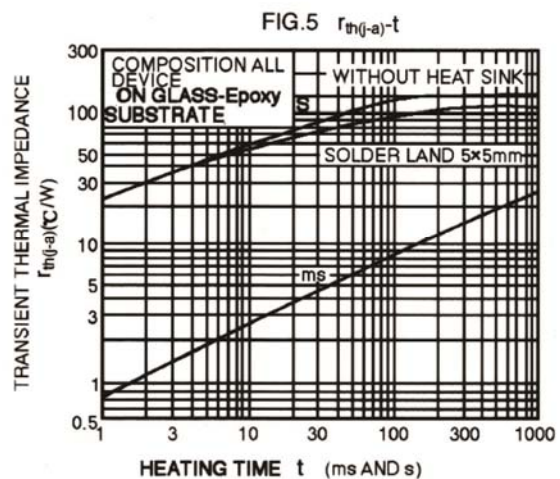
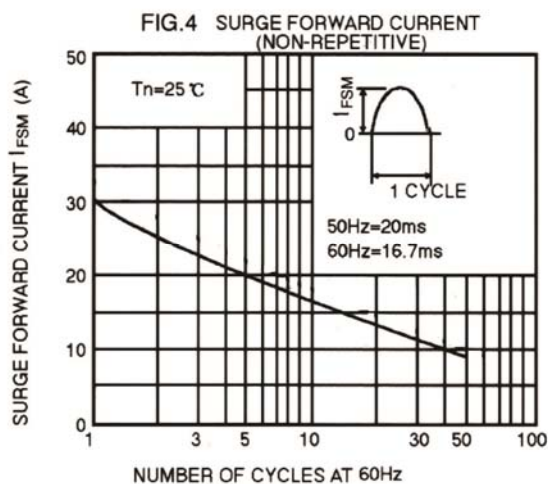
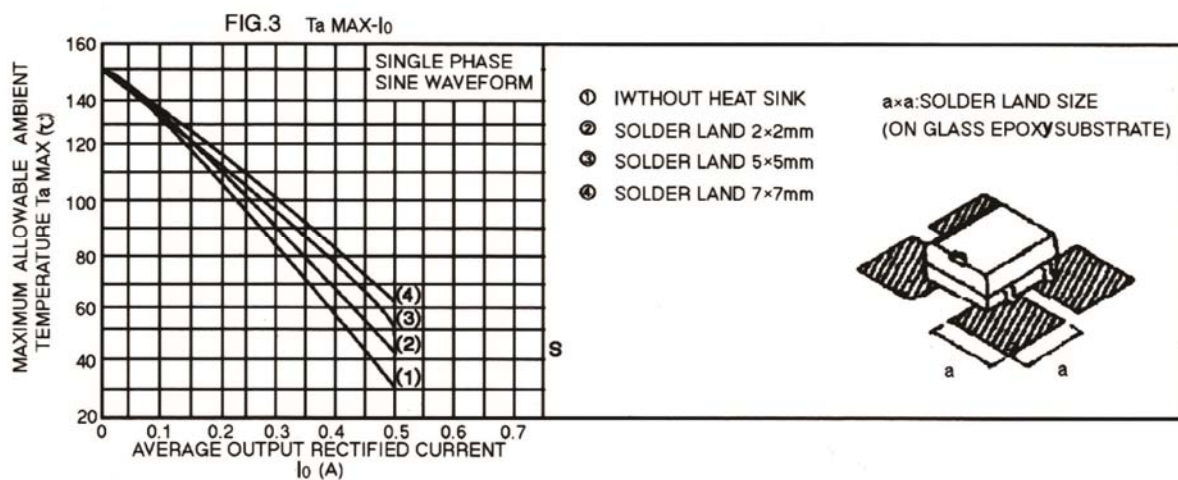
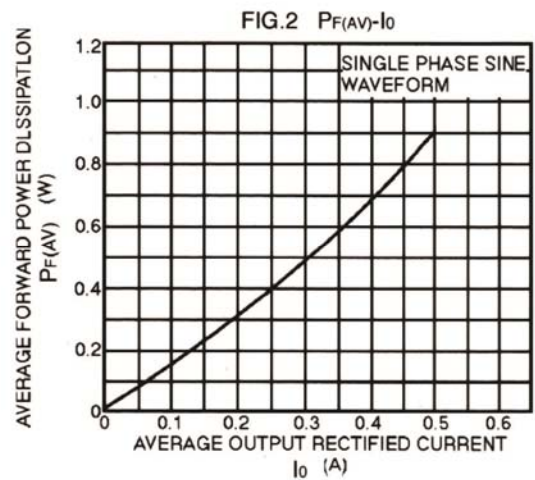
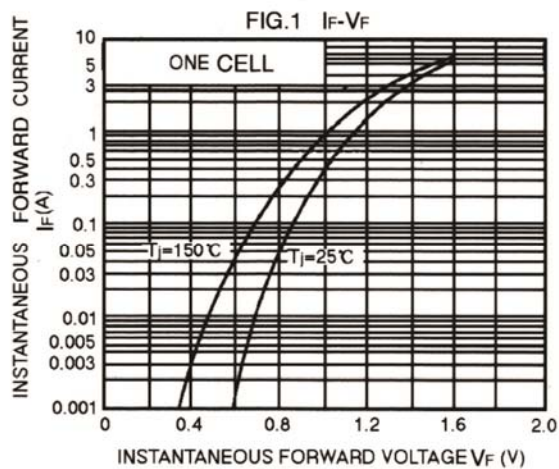


**SEMTECH ELECTRONICS LTD.**



Dated : 21/04/2016 JG Rev:01

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