

# MD1S THRU MD7S

## Miniature Glass Passivated Single Phase Surface Mount Bridge Rectifier

Reverse Voltage – 50 to 1000 Volts

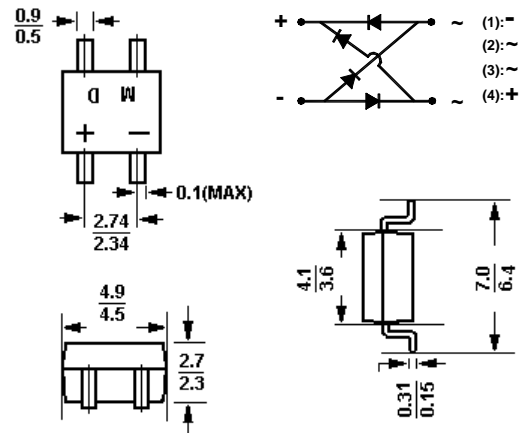
Forward Current – 0.5 Ampere

### 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

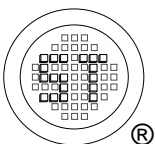
Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

	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 @ $T_A = 25^\circ C$ at rated DC blocking voltage @ $T_A = 125^\circ C$	$I_R$				5.0 500				$\mu A$
Typical junction capacitance <sup>1)</sup>	$C_J$				15				pF
Typical thermal resistance <sup>3)</sup>	$R_{\theta JA}$				76				$^\circ C/W$
Typical thermal resistance <sup>2)</sup>	$R_{\theta JL}$				20				$^\circ C/W$
Operating and storage temperature range	$T_J, T_{Stg}$				-55 to +150				$^\circ C$

<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.

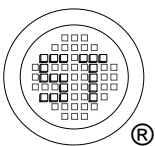
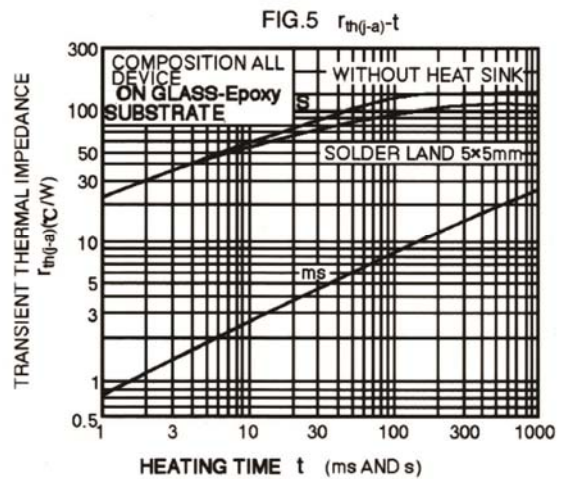
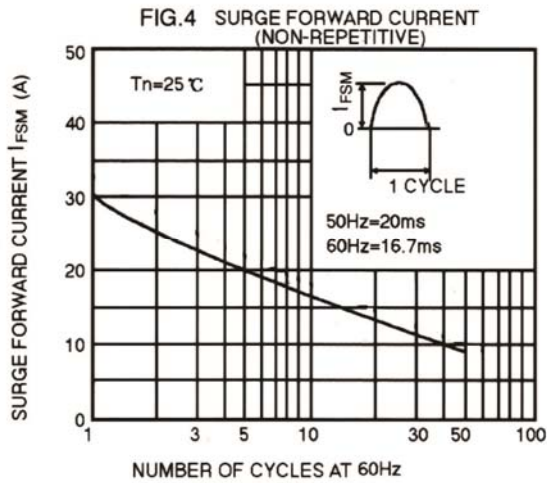
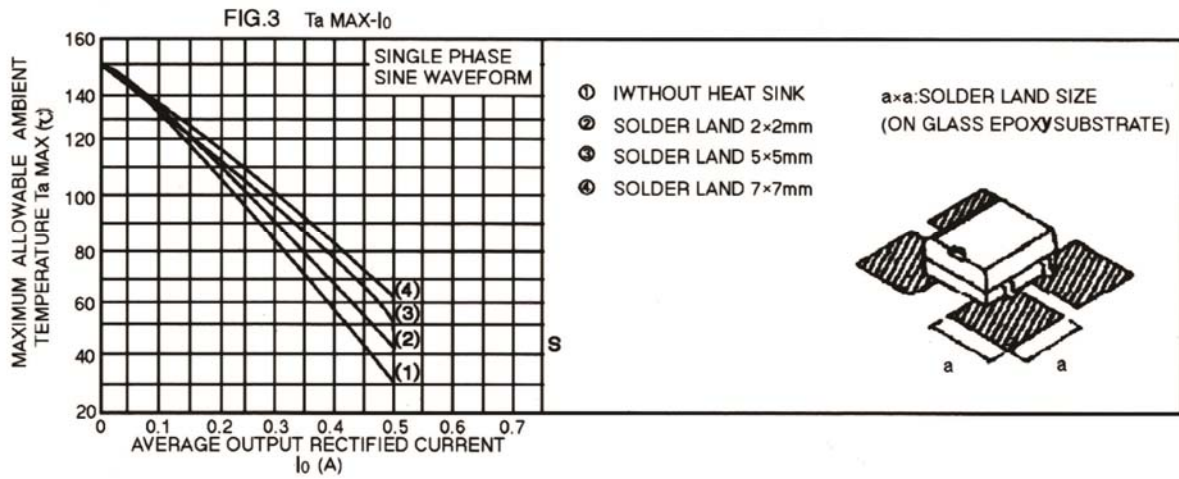
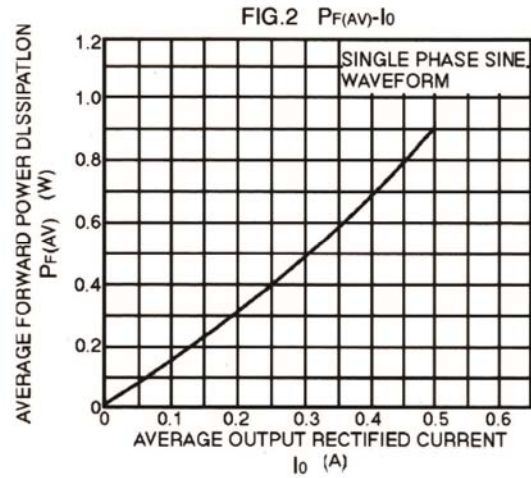
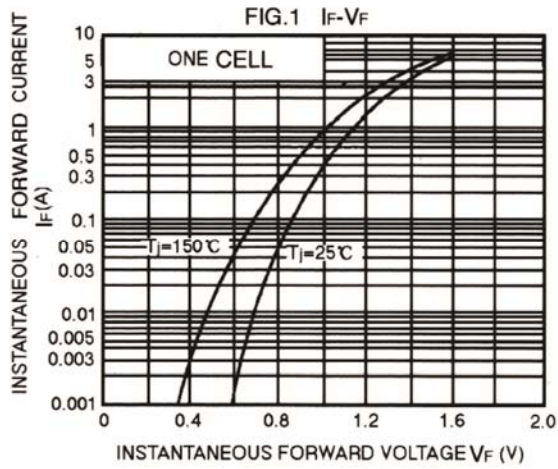


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Certificate No. 160713000

ISO 14001:2004  
Certificate No. 7116

ISO 9001:2008  
Certificate No. 0719410

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