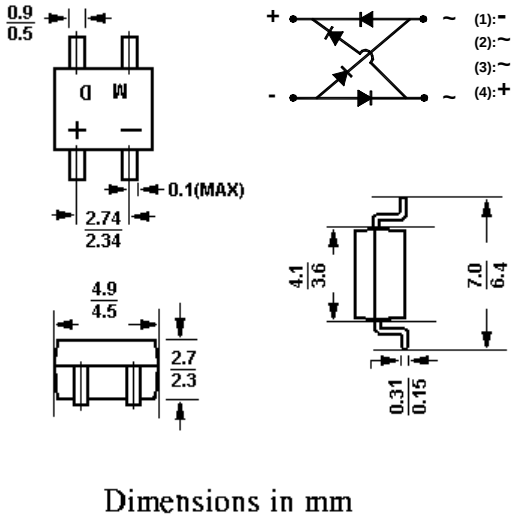
MD1S THRU MD7S

Miniature Glass Passivated Single Phase Surface Mount Bridge Rectifier
Reverse Voltage - 50 to 1000 V
Forward Current - 0.5 A



Dimensions in mm

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.
- **Polarity:** Color band denotes cathode

Absolute Maximum Ratings and Characteristics

Ratings at 25^{0}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 [2] On aluminum substrate [3]	$I_{(AV)}$	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 ℃ at rated DC blocking voltage @T_A = 125 ℃	I_R	5.0 500							μA
Typical junction capacitance [1]	C_J	15							pF
Typical thermal resistance [3]	$R_{\theta JA}$	76							℃/W
Typical thermal resistance [2]	$R_{\theta JL}$	20							℃/W
Operating and storage temperature range	T_J ,T_{Stg}	-55 to+150							℃

[1] Measured at 1 MH_Z and applied V_r = 4volts.

[2] On glass epoxy P.C.B. mounted on 0.05 x 0.05” (1.3 x 1.3 mm) pads.

[3] 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.

FIG.1 I_F-V_F

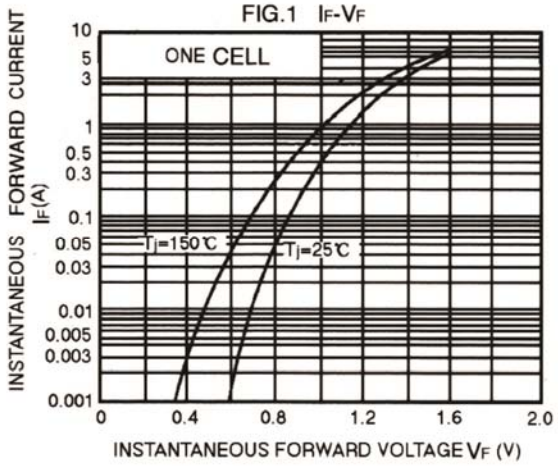


FIG.2 $P_{F(AV)}$-I_O

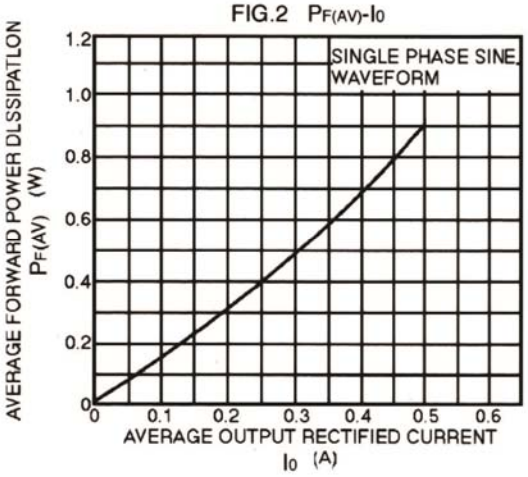


FIG.3 Ta MAX-I_O

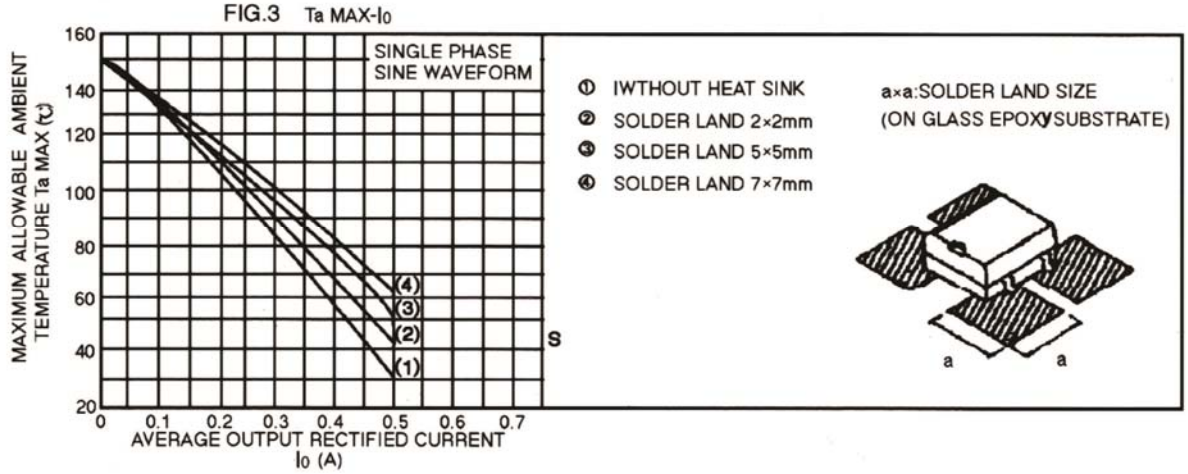


FIG.4 SURGE FORWARD CURRENT (NON-REPETITIVE)

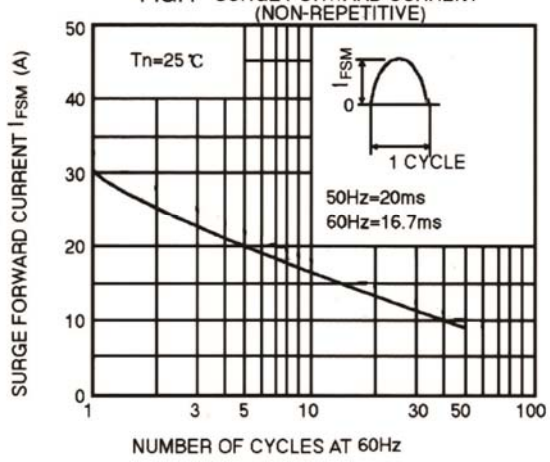


FIG.5 $r_{th(j-a)}$-t