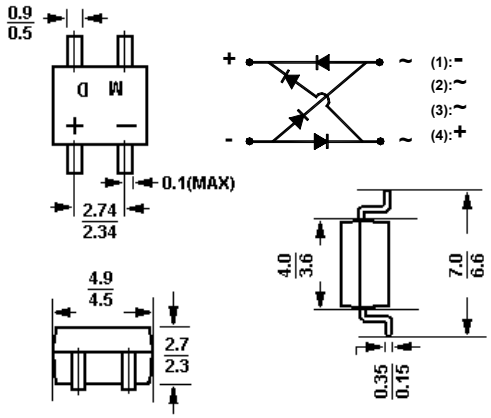
MD1S THRU MD7S

MINIATURE GLASS PASSIVATED SINGLE PHASE SURFACE MOUNT BRIDGE RECTIFIER
Reverse Voltage – 50 to 1000 Volts
Forward Current – 0.5 Ampere



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.

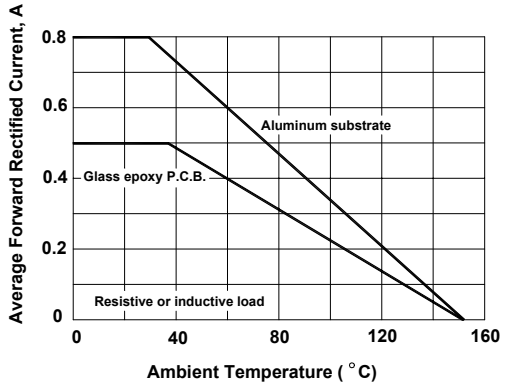
Absolute Maximum Ratings and Characteristics

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%.

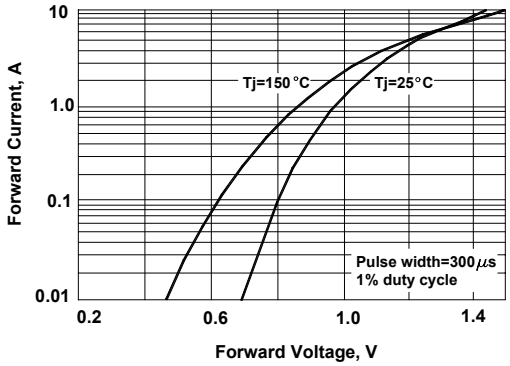
	Symbols	MD1S	MD2S	MD3S	MD4S	MD5S	MD6S	MD7S	Units
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current See Fig .1 On glass epoxy P.C.B(Note 2) On aluminum substrate(Note 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 ^{O}C at rated DC blocking voltage @T_A = 125^{O}C	I_R	5.0 500							μA
Typical junction capacitance (Note 1)	C_J	13							pF
Typical thermal resistance (Note 3)	$R_{\theta JA}$	70							^{O}C/W
Typical thermal resistance (Note 2)	$R_{\theta JL}$	20							^{O}C/W
Operating and storage temperature range	T_J , T_S	-55 to+150							^{O}C

Notes: (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.

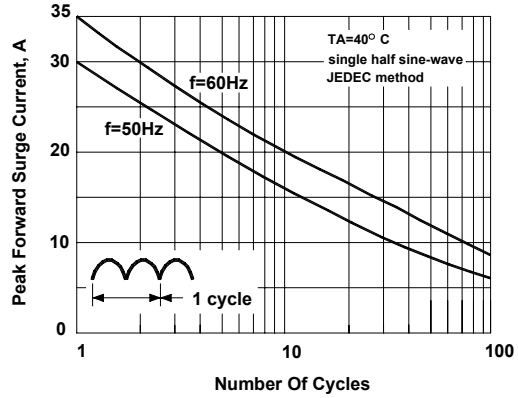
Derating curve for output rectified current



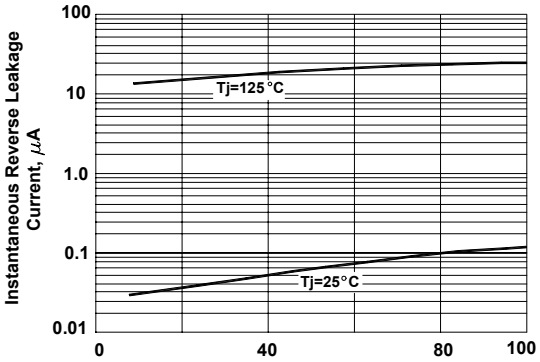
Typical Forward Voltage Characteristics per element



Max Non-repetitive Peak Forward Surge Current per leg



Typical Reverse Leakage Characteristics per leg



Typical Junction Capacitance Per Leg