

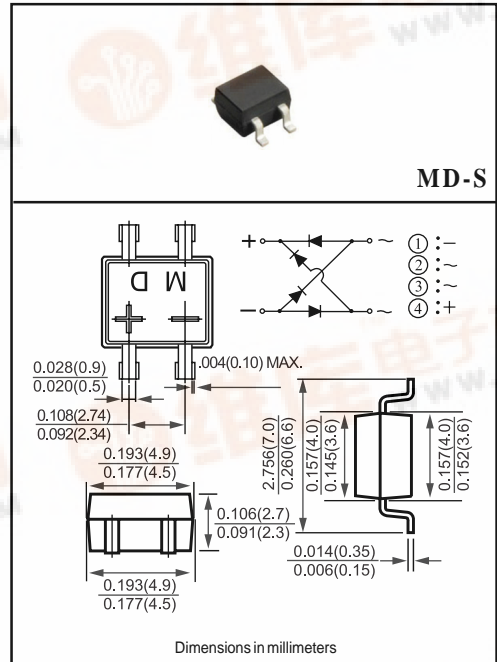
**SINGLE-PHASE GLASS PASSIVATED
MINI FAST RECOVERY SURFACE MOUNT BRIDGE RECTIFIER**
VOLTAGE RANGE 50 to 1000 Volts CURRENT 0.8 Ampere

FEATURES

- * Surge overload rating - 30 amperes peak
- * Ideal for printed circuit board
- * Reliable low cost construction utilizing molded
- * Glass passivated device
- * Polarity symbols molded on body
- * Mounting position: Any
- * Weight: 0.5 gram

MAXIMUM RATINGS AND ELECTRICAL 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%.



MAXIMUM RATINGS (At TA = 25°C unless otherwise noted)

| RATINGS | SYMBOL | FMD1S | FMD2S | FMD3S | FMD4S | FMD5S | FMD6S | FMD7S | UNITS |
|--|---------|-------|-------|-------|--------------|-------|-------|-------|-------|
| Maximum Recurrent Peak Reverse Voltage | VRRM | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS Bridge Input Voltage | VRMS | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage | VDC | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum Average Forward Output Rectified Current TA = 30°C -on glass-epoxy P.C.B. (NOTE 1) -on aluminum substrate (NOTE 2) | IO | | | | 0.5 | | | | Amp |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | IFSM | | | | 30 | | | | Amps |
| Typical Junction Capacitance (Note3) | CJ | | | | 15 | | | | pF |
| Operating and Storage Temperature Range | TJ,TSTG | | | | -55 to + 150 | | | | °C |

ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

| CHARACTERISTICS | SYMBOL | FMD1S | FMD2S | FMD3S | FMD4S | FMD5S | FMD6S | FMD7S | UNITS |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Maximum Forward Voltage Drop per Bridge Element at 0.4A DC | VF | | | | 1.30 | | | | Volts |
| Maximum Reverse Current at rated Blocking Voltage per element | @TA = 25°C | | | | 10 | | | | uAmps |
| | @TA = 125°C | | | | 100 | | | | uAmps |
| Maximum Reverse Recovery Time (Note 4) | trr | | 150 | | | 250 | 500 | | nSec |

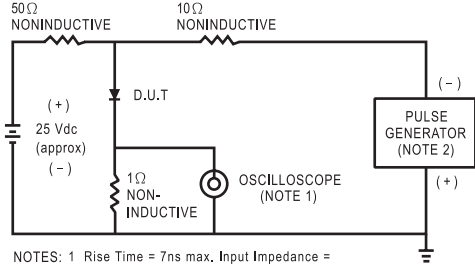
NOTE: 1. On glass-epoxy P.C.B. mounted on 0.05 X 0.05" (1.3 X 1.3mm) pads.

2. On aluminum substrate P.C.B. with an area of 0.8 X 0.8 X 0.8 X 0.25" (20 X 20 X 6.4mm) mounted on 0.05 X 0.05" (1.27 X 1.27mm) solder pad.

3. Measured at 1MHz and applied reverse voltage of 4.0 volts.

RATING AND CHARACTERISTIC CURVES (FMD1S THRU FMD7S)

FIG. 1 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1 Rise Time = 7ns max, Input Impedance = 1 megohm, 22pF.
2. Rise Time = 10ns max, Source Impedance = 50 ohms.

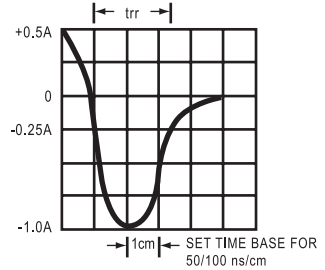


FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

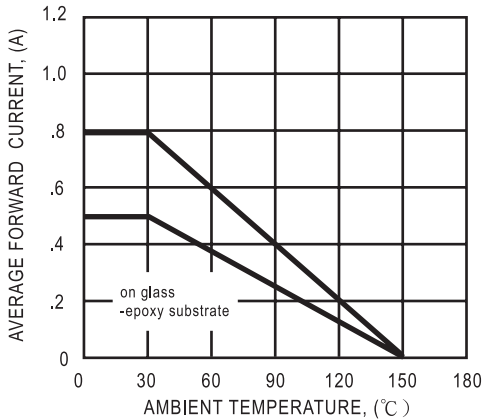


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

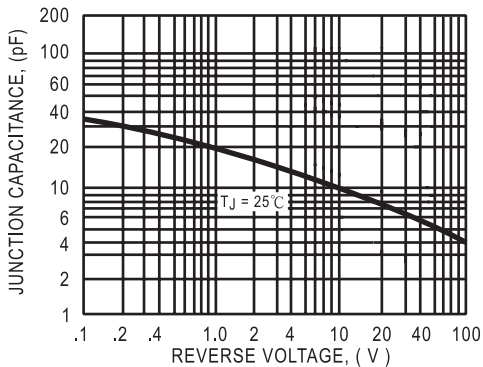


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

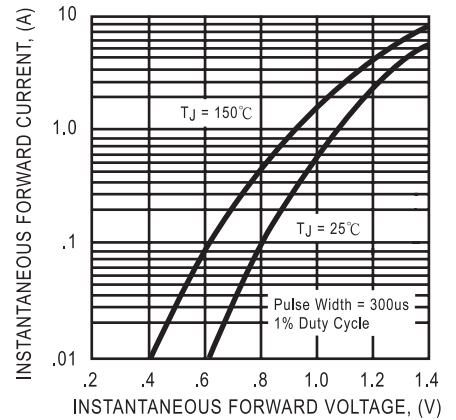


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

