



# HD01 THRU HD10

## MINI SILICON SURFACE MOUNT BRIDGE RECTIFIER

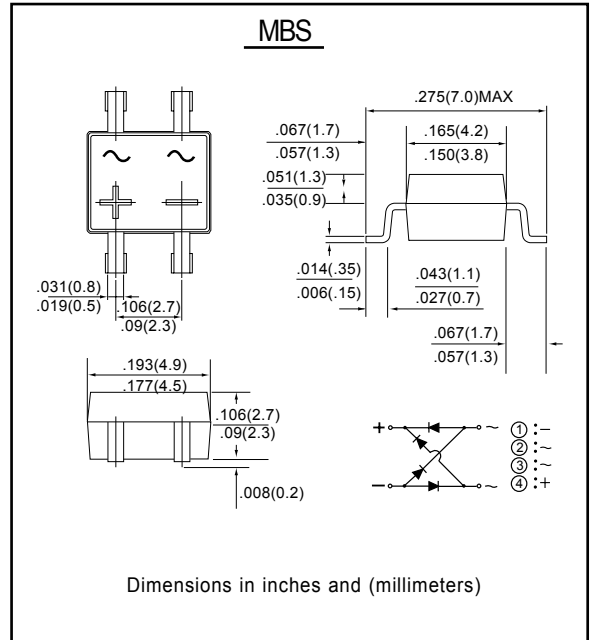
Reverse Voltage - 100 to 1000 Volts    Forward Current - 0.8 Ampere

### 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

### MECHANICAL DATA

- Case : MBS, Molded Plastic
- Epoxy : Device has UL flammability classification 94V-0
- Mounting Position : Any
- Weight : 0.22 grams (approx.)
- Marking : Type Number



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

| Characteristic  | Symbol                               | HD01        | HD02 | HD04 | HD06 | HD08 | HD10 | Unit |                  |
|---|--------------------------------------|-------------|------|------|------|------|------|------|------------------|
| Peak Repetitive Reverse Voltage   | V <sub>RRM</sub>                     |             |      |      |      |      |      |      |                  |
| Working Peak Reverse Voltage  | V <sub>RWM</sub>                     | 100         | 200  | 400  | 600  | 800  | 1000 | V    |                  |
| DC Blocking Voltage   | V <sub>R</sub>                       |             |      |      |      |      |      |      |                  |
| RMS Reverse Voltage   | V <sub>R(RMS)</sub>                  | 70          | 140  | 280  | 420  | 560  | 700  | V    |                  |
| Average Rectified Output Current (Note 1) @T <sub>A</sub> = 40°C  | I <sub>O</sub>                       | 0.8         |      |      |      |      |      |      | A                |
| Non-Repetitive Peak Forward Surge Current 8.3ms<br>Single half sine-wave superimposed on rated load<br>(JEDEC Method) | I <sub>FSM</sub>                     | 30          |      |      |      |      |      |      | A                |
| I <sup>2</sup> t Rating for Fusing (t < 8.3ms)  | I <sup>2</sup> t                     | 10          |      |      |      |      |      |      | A <sup>2</sup> s |
| Forward Voltage per element @I <sub>F</sub> = 0.8A  | V <sub>FM</sub>                      | 1.1         |      |      |      |      |      |      | V                |
| Peak Reverse Current @T <sub>A</sub> = 25°C<br>At Rated DC Blocking Voltage @T <sub>A</sub> = 125°C                   | I <sub>RM</sub>                      | 5.0<br>500  |      |      |      |      |      |      | μA               |
| Typical Junction Capacitance per leg (Note 2)   | C <sub>j</sub>                       | 25          |      |      |      |      |      |      | pF               |
| Typical Thermal Resistance per leg (Note 1)   | R <sub>θJA</sub><br>R <sub>θJL</sub> | 85<br>20    |      |      |      |      |      |      | °C/W             |
| Operating and Storage Temperature Range   | T <sub>j</sub> , T <sub>STG</sub>    | -55 to +150 |      |      |      |      |      |      | °C               |

Note: 1. Mounted on glass epoxy PC board with 1.3mm<sup>2</sup> solder pad.  
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.



# HD01 THRU HD10

## RATINGS AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

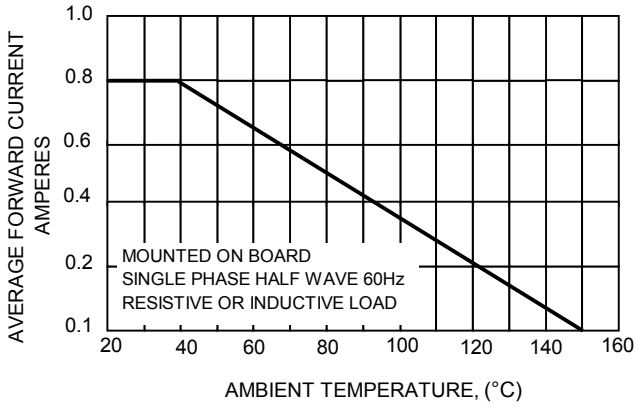


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

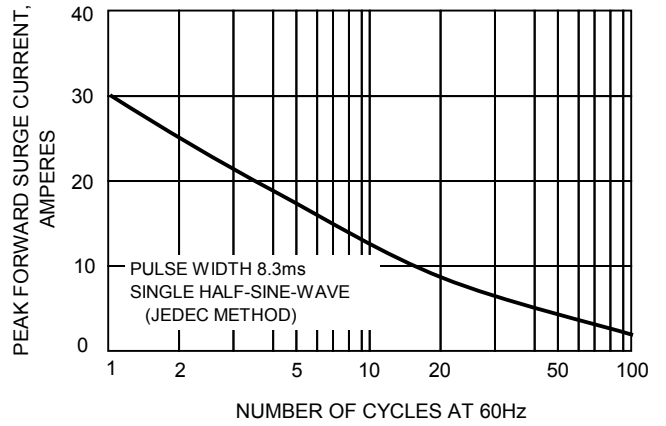


FIG.3-TYPICAL REVERSE CHARACTERISTICS

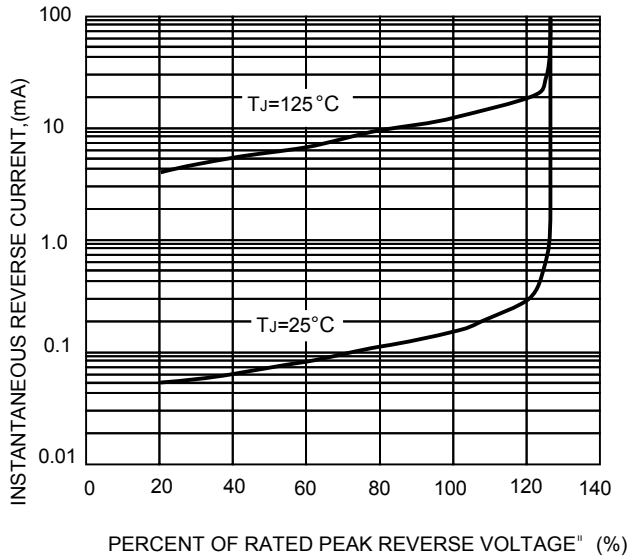


FIG.4-TYPICAL FORWARD CHARACTERISTICS

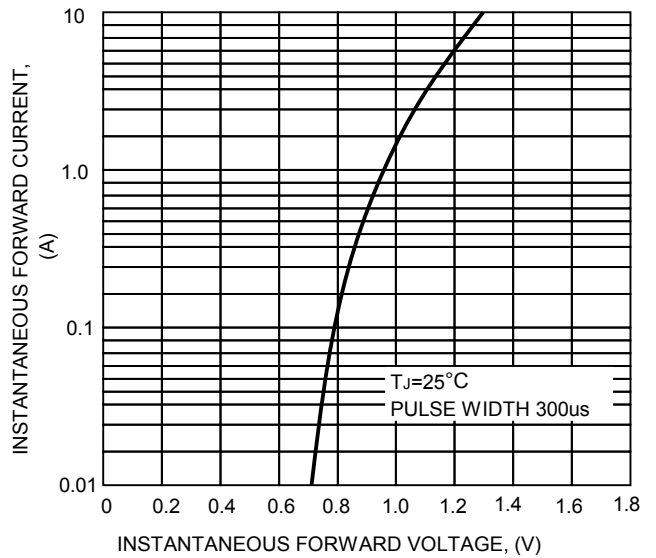


FIG.5-TYPICAL JUNCTION CAPACITANCE

