



# HD01 THRU HD10

## MINI SILICON SURFACE MOUNT BRIDGE RECTIFIER

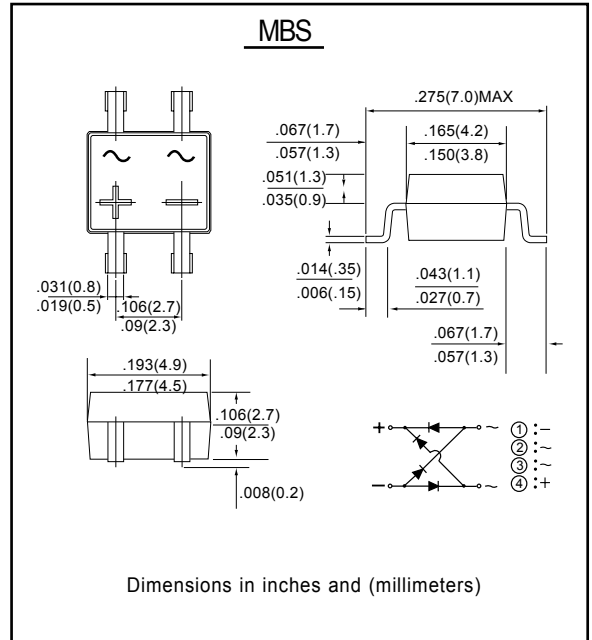
Reverse Voltage - 100 to 1000 Volts    Forward Current - 0.8 Ampere

### 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 Single half sine-wave superimposed on rated load (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 At Rated DC Blocking Voltage @T <sub>A</sub> = 125°C	I <sub>RM</sub>	5.0 500							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> R <sub>θJL</sub>	85 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.



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## RATINGS AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

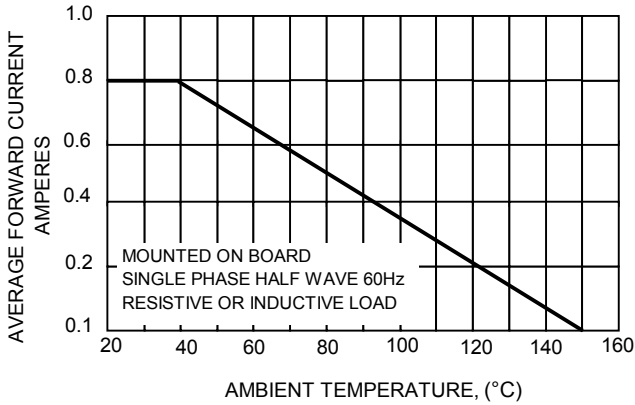


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

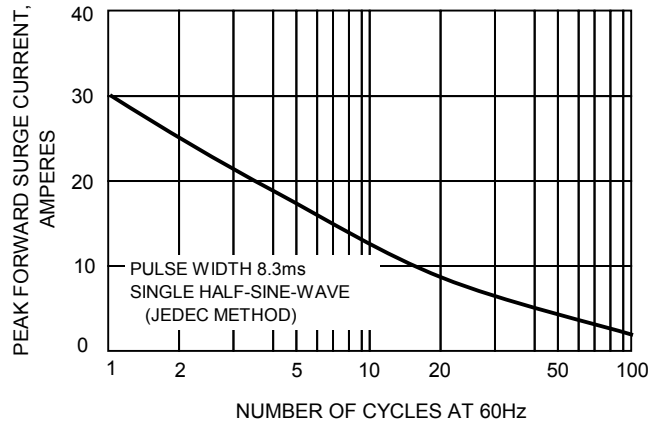


FIG.3-TYPICAL REVERSE CHARACTERISTICS

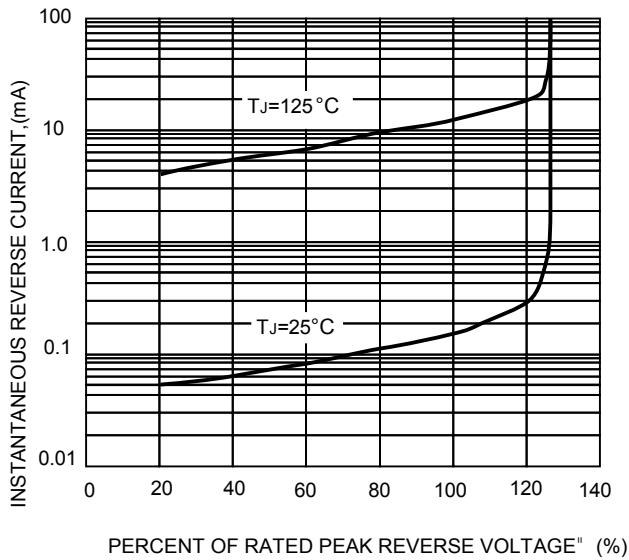


FIG.4-TYPICAL FORWARD CHARACTERISTICS

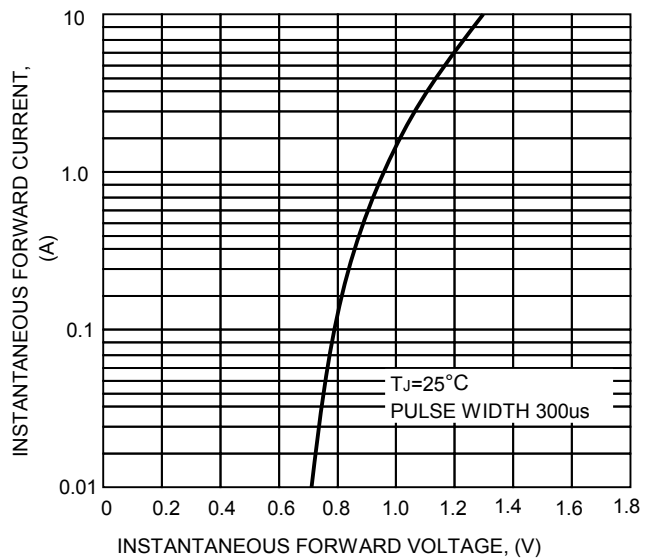


FIG.5-TYPICAL JUNCTION CAPACITANCE

