

**0.8A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER**

**Product Summary** @ $T_A = +25^{\circ}\text{C}$

$V_{RRM}$ (V)	$I_o$ (A)	$V_F$ (V)	$I_R$ ( $\mu\text{A}$ )
1,000	0.8	1.05	5

**Description and Applications**

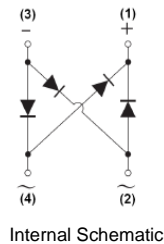
Suitable for AC to DC bridge full wave rectification for SMPS, LED lighting, adapters, battery chargers, home appliances, office equipment and telecommunication applications.

**Features and Benefits**

- Glass Passivated Die Construction
- Compact, Thin Profile Package Design
- Reliable Robust Construction
- Ideal for SMT Manufacturing
- **Lead-Free Finish/RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**
- **For automotive applications requiring specific change control (i.e. parts qualified to AEC-Q100/101/104/200, PPAP capable, and manufactured in IATF 16949 certified facilities), please [contact us](#) or your local Diodes representative. <https://www.diodes.com/quality/product-definitions/>**

**Mechanical Data**

- Package: MSB
- Package Material: Molded Plastic; UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Finish – Matte Tin Annealed over Copper Leadframe; Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Weight: 0.07 grams (Approximate)

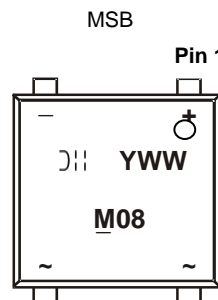


**Ordering Information** (Note 4)

Part Number	Package	Packing	
		Qty.	Carrier
MSB08M-13	MSB	3,000	Tape & Reel

- Notes:
1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
  2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
  3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
  4. For packaging details, go to our website at <https://www.diodes.com/design/support/packaging/diodes-packaging/>.

**Marking Information**



M08 = Product Type Marking Code  
 = Manufacturers' Code Marking  
 YWW = Date Code Marking  
 Y = Last Digit of Year (ex: 2 = 2022)  
 WW = Week Code (01 to 53)

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**Maximum Ratings** (@T<sub>A</sub> = +25°C, unless otherwise specified.)

Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitance load, derate current by 20%.

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	1,000	V
Working Peak Reverse Voltage	V <sub>RWM</sub>		
DC Blocking Voltage	V <sub>R</sub>		
RMS Reverse Voltage	V <sub>R(RMS)</sub>	700	V
Average Rectified Output Current @ T <sub>C</sub> = +120°C	I <sub>O</sub>	0.8	A
Non-Repetitive Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I <sub>FSM</sub>	30	A

**Thermal Characteristics**

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance, Junction to Ambient (Note 5)	R <sub>θJA</sub>	80	°C/W
Typical Thermal Resistance, Junction to Case	R <sub>θJC</sub>	12	°C/W
Typical Thermal Resistance, Junction to Lead	R <sub>θJL</sub>	40	°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C

**Electrical Characteristics** (@T<sub>A</sub> = +25°C, unless otherwise specified.)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 6)	V <sub>(BR)R</sub>	1,000	—	—	V	I <sub>R</sub> = 5μA
Forward Voltage	V <sub>F</sub>	—	0.90 0.95	1.02 1.05	V	I <sub>F</sub> = 0.4A I <sub>F</sub> = 0.8A
Leakage Current (Note 6)	I <sub>R</sub>	—	—	5 500	μA	V <sub>R</sub> = 1,000V, T <sub>A</sub> = +25°C V <sub>R</sub> = 1,000V, T <sub>A</sub> = +125°C
Typical Total Capacitance	C <sub>T</sub>	—	10	—	pF	V <sub>R</sub> = 4V, f = 1.0MHz

Note: 5. Device mounted on glass-epoxy substrate with 1oz 20mm x 20mm Cu pad per pin.  
6. Short duration pulse test used to minimize self-heating effect.

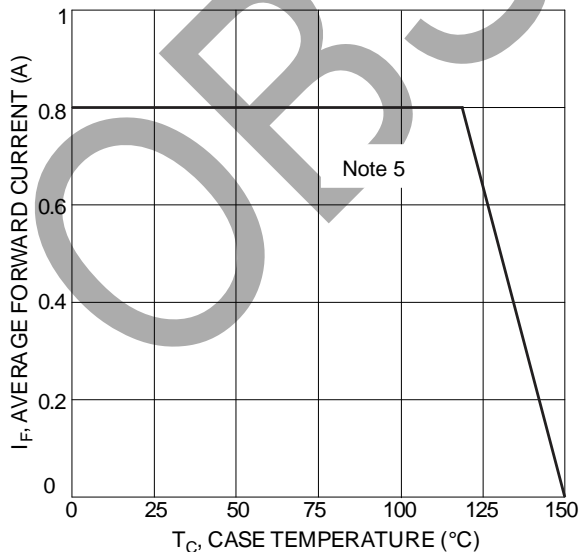


Figure 1 Forward Current Derating Curve

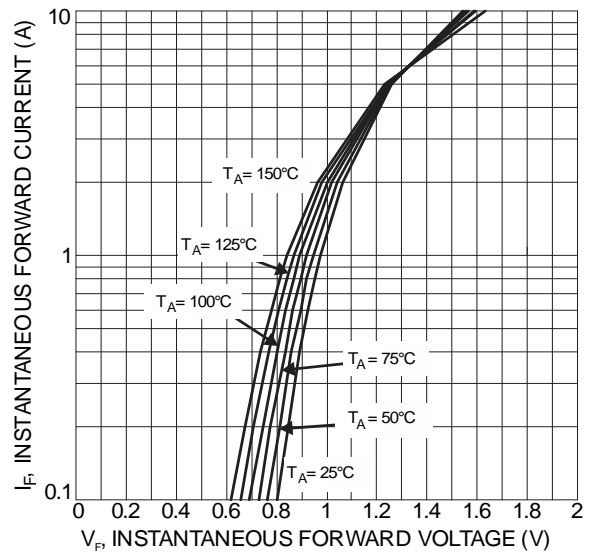


Figure 2 Typical Forward Characteristics

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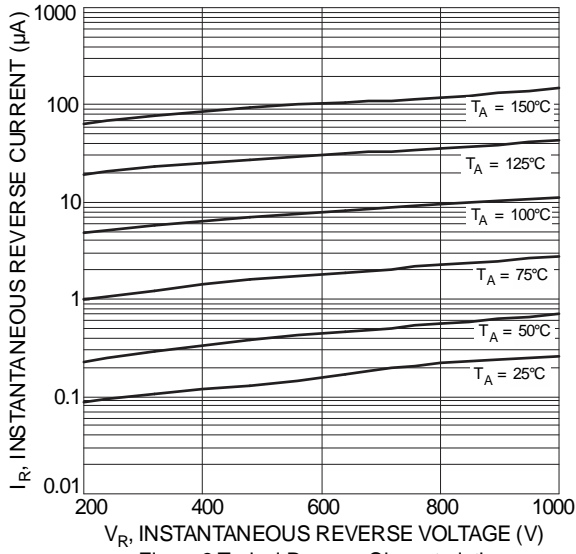


Figure 3 Typical Reverse Characteristics

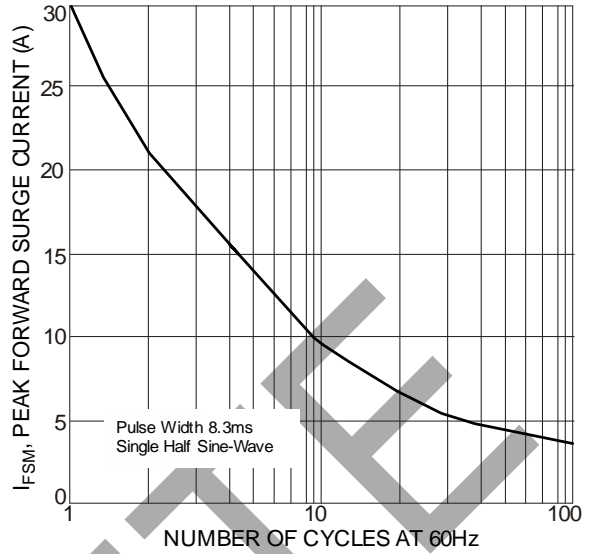


Figure 4 Forward Surge Current Derating Curve

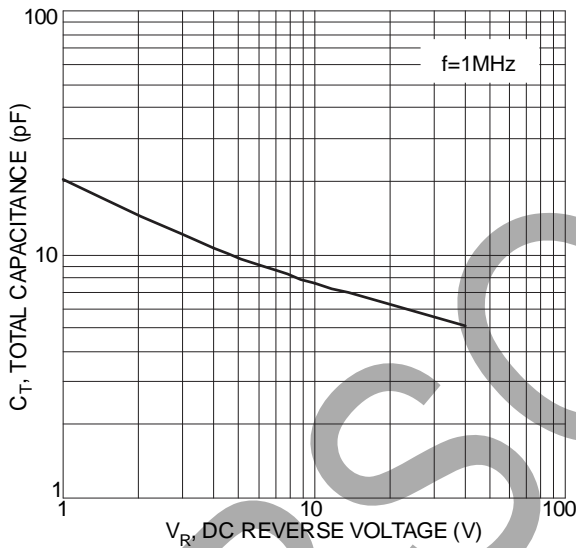


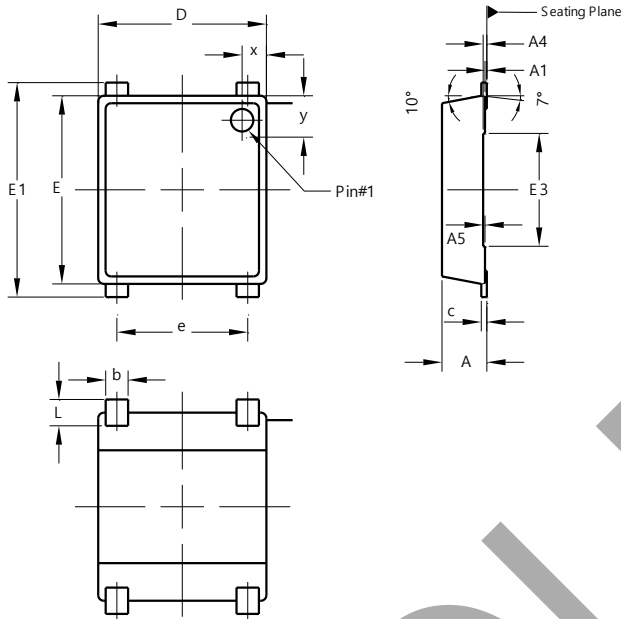
Figure 5 Total Capacitance vs. Reverse Voltage

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**Package Outline Dimensions**

Please see <http://www.diodes.com/package-outlines.html> for the latest version.

**MSB**

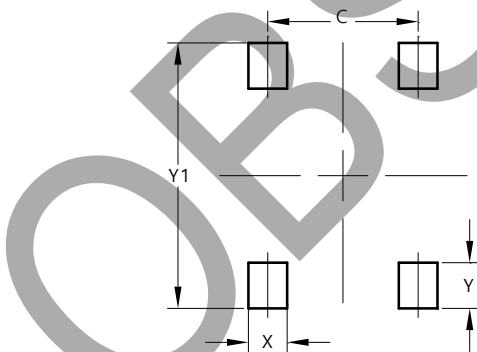


MSB			
Dim	Min	Max	Typ
A	1.10	1.30	1.20
A1	0.00	0.05	0.02
A4	0.05	0.08	-
A5	0.03	0.08	0.05
b	0.55	0.70	0.60
c	0.12	0.18	0.15
D	4.40	4.60	4.50
E	4.90	5.10	5.00
E1	5.60	5.80	5.70
E3	2.95	3.05	3.00
e	3.45	3.55	3.50
L	0.65	0.75	0.70
x	0.60	0.70	0.65
y	0.60	0.70	0.65
All Dimensions in mm			

**Suggested Pad Layout**

Please see <http://www.diodes.com/package-outlines.html> for the latest version.

**MSB**



Dimensions	Value (in mm)
C	3.55
X	0.90
Y	1.05
Y1	6.10

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