

# Zibo Seno Electronic Engineering Co., Ltd.



## RS8005M - RS810M

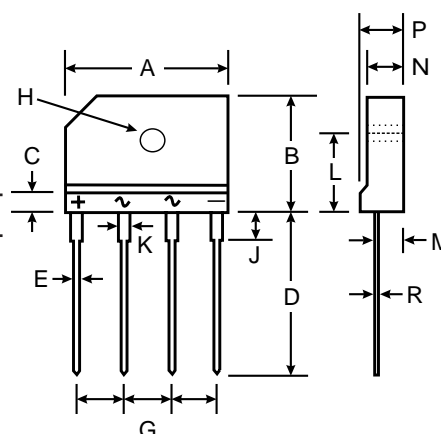
### 8.0A GLASS PASSIVATED BRIDGE RECTIFIER

#### Features

- Glass Passivated Die Construction
- High Case Dielectric Strength of 1500V<sub>RMS</sub>
- Low Reverse Leakage Current
- Surge Overload Rating to 170A Peak
- Ideal for Printed Circuit Board Applications
- Plastic Material - UL Flammability Classification 94V-0
- Lead Free: For RoHS / Lead Free Version

#### Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads, Solderable per MIL-STD-202, Method 208
- Polarity: Molded on Body
- Mounting: Through Hole for #6 Screw
- Mounting Torque: 5.0 in-lbs Maximum
- Weight: 6.6 grams (approx)
- Marking: Type Number



RS-8M		
Dim	Min	Max
A	24.80	25.20
B	14.70	15.30
C	4.00 Nominal	
D	17.20	17.80
E	0.90	1.10
G	7.30	7.70
H	3.10 $\varnothing$	3.40 $\varnothing$
J	3.30	3.70
K	1.50	1.90
L	9.30	9.70
M	2.50	2.90
N	3.40	3.80
P	4.40	4.80
R	0.60	0.80
All Dimensions in mm		

#### Maximum Ratings and Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

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

Characteristic	Symbol	RS 8005M	RS 801M	RS 802M	RS 804M	RS 806M	RS 808M	RS 810M	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	280	420	560	700	V
Average Forward Rectified Output Current @ T <sub>C</sub> = 110°C	I <sub>O</sub>	8.0							A
Non-Repetitive Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load	I <sub>FSM</sub>	170							A
Forward Voltage per element @ I <sub>F</sub> = 4.0A	V <sub>FM</sub>	1.0							V
Peak Reverse Current @ T <sub>C</sub> = 25°C at Rated DC Blocking Voltage @ T <sub>C</sub> = 125°C	I <sub>R</sub>	2.0 500							μA
I <sup>2</sup> t Rating for Fusing (t < 8.3ms) (Note 1)	I <sup>2</sup> t	120							A <sup>2</sup> s
Typical Total Capacitance per Element (Note 2)	C <sub>T</sub>	55							pF
Typical Thermal Resistance Junction to Case (Note 3)	R <sub>θJC</sub>	1.6							°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150							°C

- Notes:
1. Non-repetitive, for t > 1.0ms and < 8.3ms.
  2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.
  3. Thermal resistance from junction to case per element. Unit mounted on 100 x 100 x 1.6mm aluminum plate heat sink.
  4. RoHS revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see EU Directive Annex Notes 5 and 7.

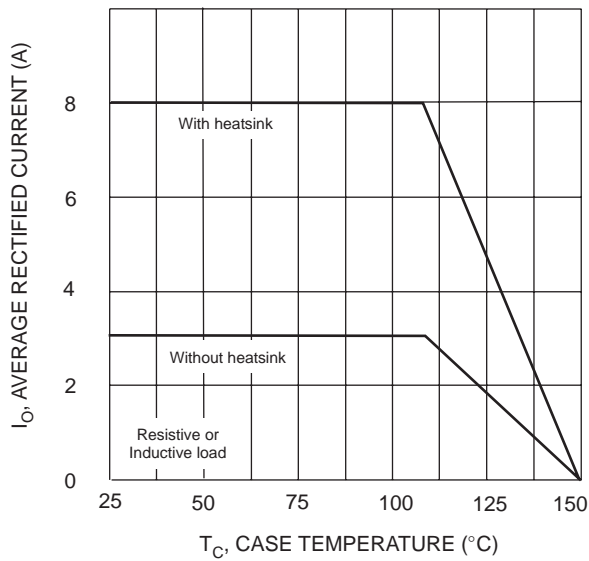


Fig. 1 Forward Current Derating Curve

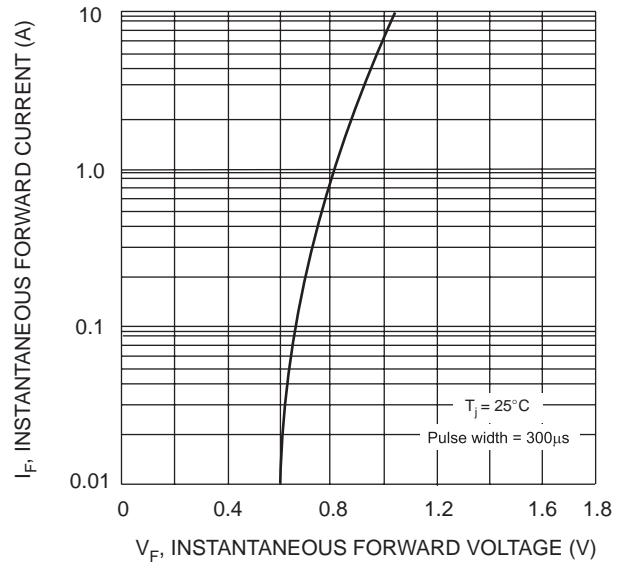


Fig. 2 Typical Forward Characteristics (per element)

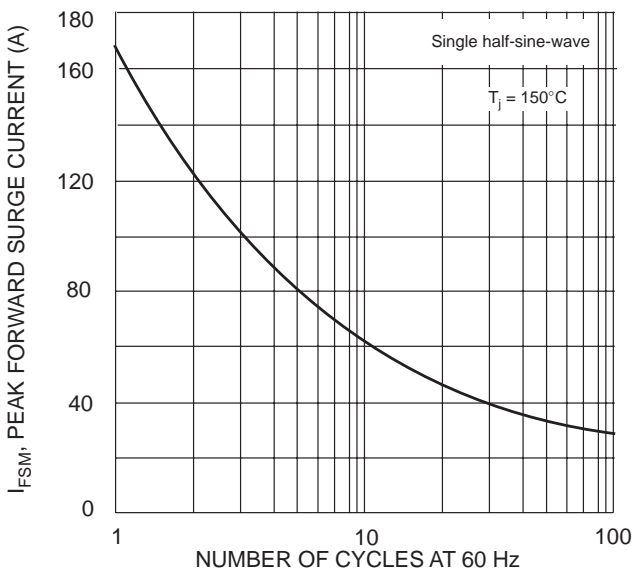


Fig. 3 Maximum Non-Repetitive Surge Current

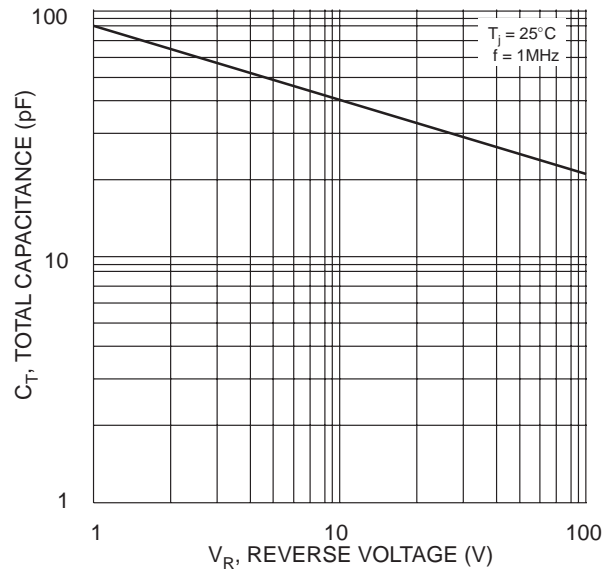


Fig. 4 Typical Total Capacitance (per element)

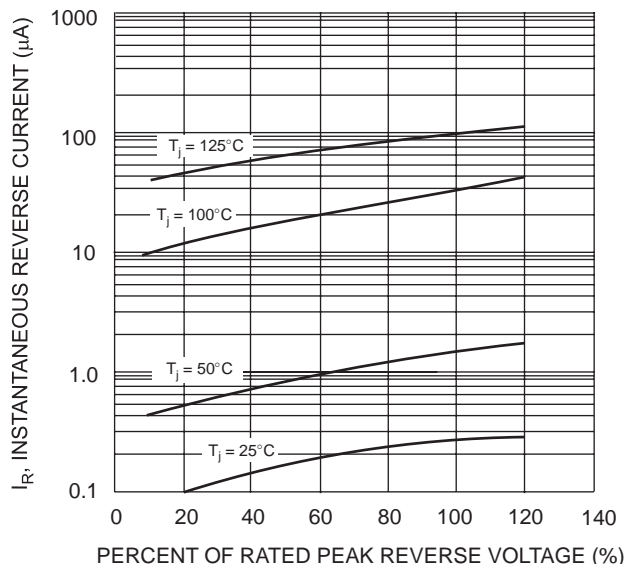


Fig. 5 Typical Reverse Characteristics