

Super Barrier Rectifier ™

Using state-of-the-art SBR IC process technology, the following features are made possible in a single device:

Major ratings and characteristics

Characteristics	Values	Units
I _{F(AV)} Rectangular Waveform	1.0 *	Α
V_{RRM}	30	V
V _F @1A, T _J =75°C	0.38	V, typ
T _J (operating/storage)	-65 to 125	°C

*Note: Device monuted on a glass epoxy board,

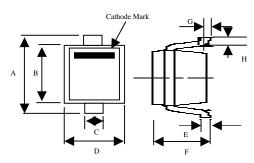
Board size: 50mm x 50m, Land size: 6mm x 6mm

ELECTRICAL:

- * Low Forward Voltage Drop
- * Low Reverse Leakage
- * Reliable High Temperature Operation
- * Super Barrier Design
- * Softest, fast switching capability
- * 125°C Operating Junction Temperature

MECHANICAL:

* Molded Plastic SOD-323 package



,	SOD-323				
Di	Min	Max			
A	2.30	2.70			
В	1.60	1.80			
С	0.25	0.40			
D	1.15	1.45			
Е	0.10	0.18			
F	0.85	1.05			
G	-	0.10			
Н	0.20	0.40			
All Dimensions in mm					

Maximum Ratings and Electrical Characteristics (at 25°C unless otherwise specified)

(at 25 C unless otherwise specified)							
	SYMBOL			UNITS			
DC Blocking Voltage Working Peak Reverse Voltage Peak Repetitive Reverse Voltage	V _{RM} V _{RWM} V _{RRM}	30		Volts			
Average Rectified Forward Current (Rated V _R -20Khz Square Wave) - 50% duty cycle	I _O ⁽¹⁾	1		Amps			
Peak Forward Surge Current - 1/2 60hz	I _{FSM}	18		Amps			
Instantaneous Forward Voltage $I_F = 0.7A$; $T_J = 25^{\circ}C$ $I_F = 1A$; $T_J = 25^{\circ}C$ $I_F = 0.7A$; $T_J = 75^{\circ}C$	V _F	Typ 0.41 	Max 0.41 0.36	Volts			
Maximum Reverse Current at Rated V_{RM} $T_J = 25^{\circ}C$ $T_J = 75^{\circ}C$	I _R ⁽²⁾	Typ 	Max 0.1 2	mA mA			
Operating and Storage Junction Temperature	TJ	-65 to +125		°C			

⁽¹⁾ We recommend that the worst case current be no greater than 80% of the maximum rating of I $_{
m O}$

⁽²⁾ Pulse width < 300 uS, Duty cycle < 2%

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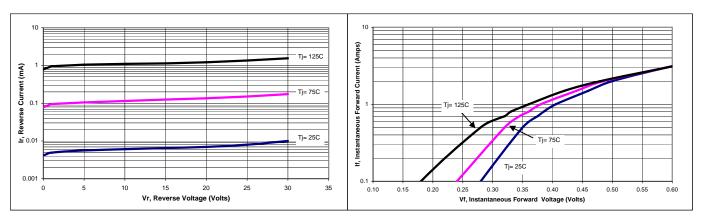


Figure 1: Typical Reverse Current

Figure 2: Typical Forward Voltage

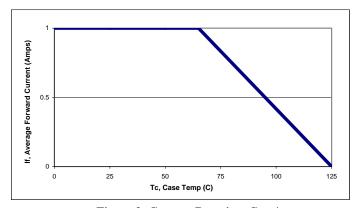
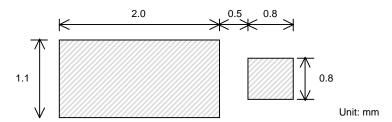


Figure 3: Current Derating, Case*

*Device mounted on a 50mm x 50mm glass epoxy board, 50% duty cycle

STANDARD SOLDERING PAD:



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