

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

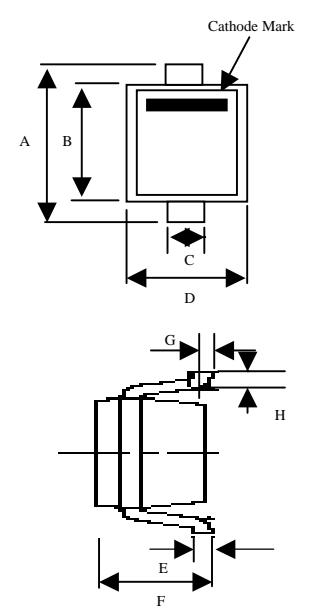
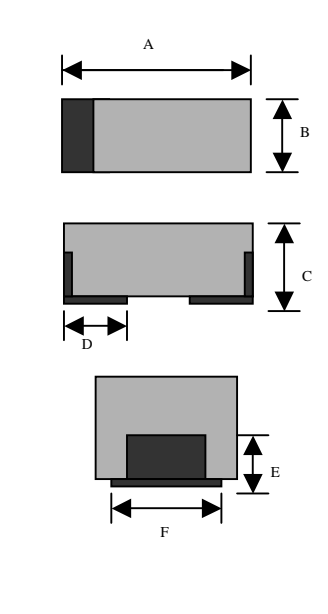
Characteristics	Values	Units
$I_{F(AV)}$ Rectangular Waveform	0.10	A
V_{RRM}	40	V
$V_F @ 0.1A, T_J = 75^\circ C$	0.43	V, typ
T_J (operating/storage)	-65 to 125	$^\circ C$

ELECTRICAL:

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

MECHANICAL:

- * Molded Plastic SOD-323, SOD-523 packages

SBR0140S3	SBR0140S5																																																												
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Maximum Ratings and Electrical Characteristics (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}	40		Volts
Average Rectified Forward Current (Rated V_R - 20Khz Square Wave) - 50% duty cycle	I_o	0.10		Amps
Peak Forward Surge Current - 1/2 60hz	I_{FSM}	2		Amps
Instantaneous Forward Voltage $I_F = 100mA; T_J = 25^\circ C$ $I_F = 100mA; T_J = 75^\circ C$	V_F	Typ --- ---	Max 0.49 0.46	Volts
Maximum Reverse Current at Rated V_{RM} $T_J = 25^\circ C$ $T_J = 75^\circ C$	I_R^*	Typ --- ---	Max 5 200	uA uA
Operating and Storage Junction Temperature	T_J	-65 to +125		°C

NOTE: Dice are available for customer applications.

* Pulse width < 300 uS, Duty cycle < 2%

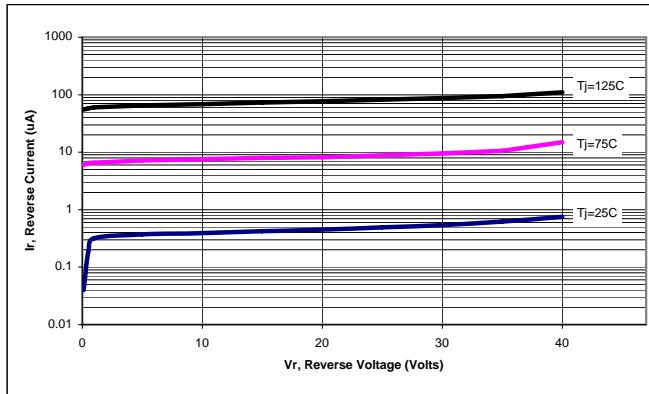


Figure 1: Typical Reverse Current

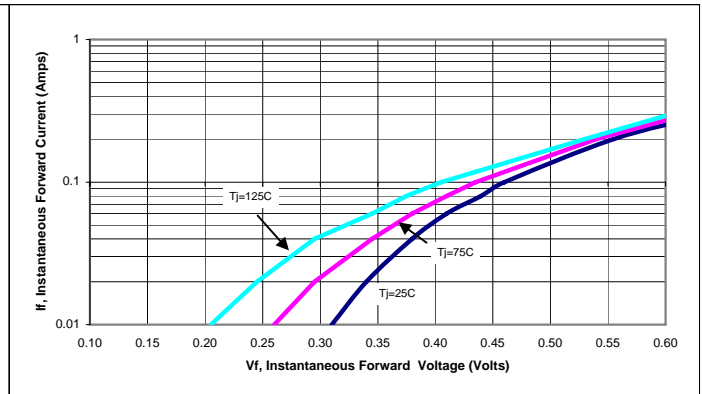


Figure 2: Typical Forward Voltage

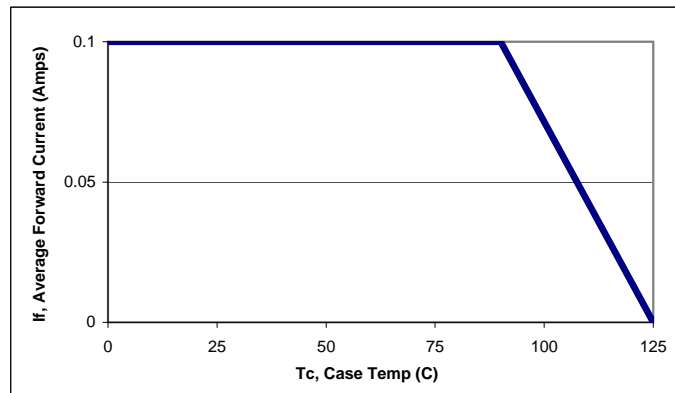


Figure 3: Current Derating, Case

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