



SBR0130S3  
SBR0130S5

# 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

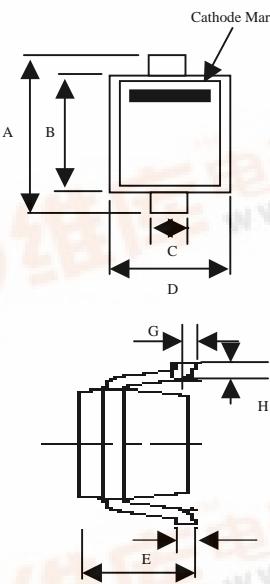
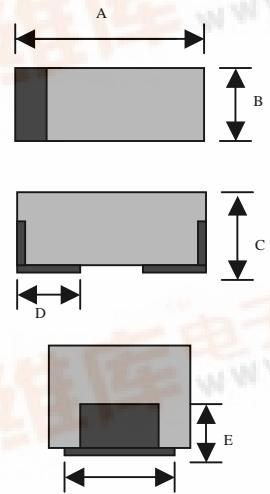
Characteristics	Values	Units
$I_{F(AV)}$ Rectangular Waveform	0.10	A
$V_{RRM}$	30	V
$V_F$ @0.1A, $T_J=75^\circ\text{C}$	0.37	V, typ
$T_J$ (operating/storage)	-65 to 125	°C

## 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, SOD-523 packages

SBR0130S3		SBR0130S5																																																													
	<table border="1" data-bbox="610 1471 817 1852"> <tr> <th colspan="3">SOD-323</th> </tr> <tr> <th>Di</th><th>Min</th><th>Max</th></tr> <tr> <td>A</td><td>2.30</td><td>2.70</td></tr> <tr> <td>B</td><td>1.60</td><td>1.80</td></tr> <tr> <td>C</td><td>0.25</td><td>0.40</td></tr> <tr> <td>D</td><td>1.15</td><td>1.45</td></tr> <tr> <td>E</td><td>0.10</td><td>0.18</td></tr> <tr> <td>F</td><td>0.85</td><td>1.05</td></tr> <tr> <td>G</td><td>-</td><td>0.10</td></tr> <tr> <td>H</td><td>0.20</td><td>0.40</td></tr> <tr> <td colspan="3">All Dimensions in mm</td></tr> </table>	SOD-323			Di	Min	Max	A	2.30	2.70	B	1.60	1.80	C	0.25	0.40	D	1.15	1.45	E	0.10	0.18	F	0.85	1.05	G	-	0.10	H	0.20	0.40	All Dimensions in mm				<table border="1" data-bbox="1261 1448 1467 1830"> <tr> <th colspan="3">SOD-523</th> </tr> <tr> <th>Di</th><th>Min</th><th>Max</th></tr> <tr> <td>A</td><td>1.60</td><td>1.80</td></tr> <tr> <td>B</td><td>0.8</td><td>1.0</td></tr> <tr> <td>C</td><td>0.70</td><td>0.85</td></tr> <tr> <td>D</td><td>0.35 (typ)</td><td></td></tr> <tr> <td>E</td><td>0.30 (typ)</td><td></td></tr> <tr> <td>F</td><td>0.70 (typ)</td><td></td></tr> <tr> <td colspan="3">All Dimensions in mm</td></tr> </table>	SOD-523			Di	Min	Max	A	1.60	1.80	B	0.8	1.0	C	0.70	0.85	D	0.35 (typ)		E	0.30 (typ)		F	0.70 (typ)		All Dimensions in mm		
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SOD-323

SOD-523



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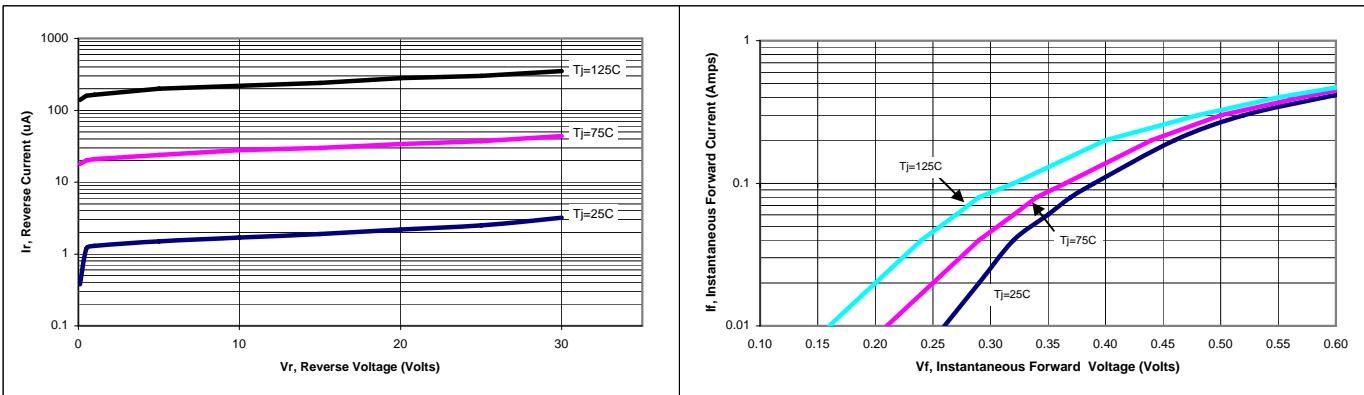
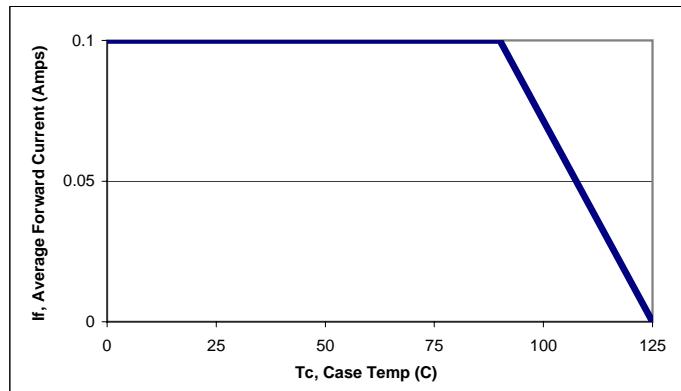
### Maximum Ratings and Electrical Characteristics

(at 25°C unless otherwise specified)

	SYMBOL			UNITS
DC Blocking Voltage	$V_{RM}$			
Working Peak Reverse Voltage	$V_{RWM}$	30		Volts
Peak Repetitive Reverse Voltage	$V_{RRM}$			
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 $I_F = 100\text{mA}; T_J = 25^\circ\text{C}$ $I_F = 100\text{mA}; T_J = 75^\circ\text{C}$	$V_F$	Typ ---	Max 0.42 0.40	Volts
Maximum Reverse Current at Rated $V_{RM}$ $T_J = 25^\circ\text{C}$ $T_J = 75^\circ\text{C}$	$I_R$ *	Typ ---	Max 50 500	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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