



SBR0140S3
SBR0140S5

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, $T_J=75^\circ\text{C}$	0.43	V, typ
T_J (operating/storage)	-65 to 125	°C

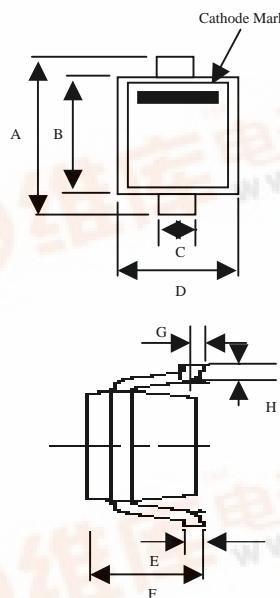
ELECTRICAL:

- * 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

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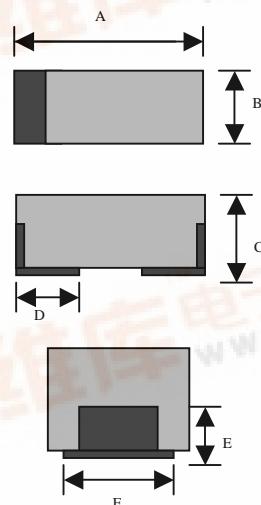


SOD-323		
Di	Min	Max
A	2.30	2.70
B	1.60	1.80
C	0.25	0.40
D	1.15	1.45
E	0.10	0.18
F	0.85	1.05
G	-	0.10
H	0.20	0.40

All Dimensions in mm

SOD-323

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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

SOD-523

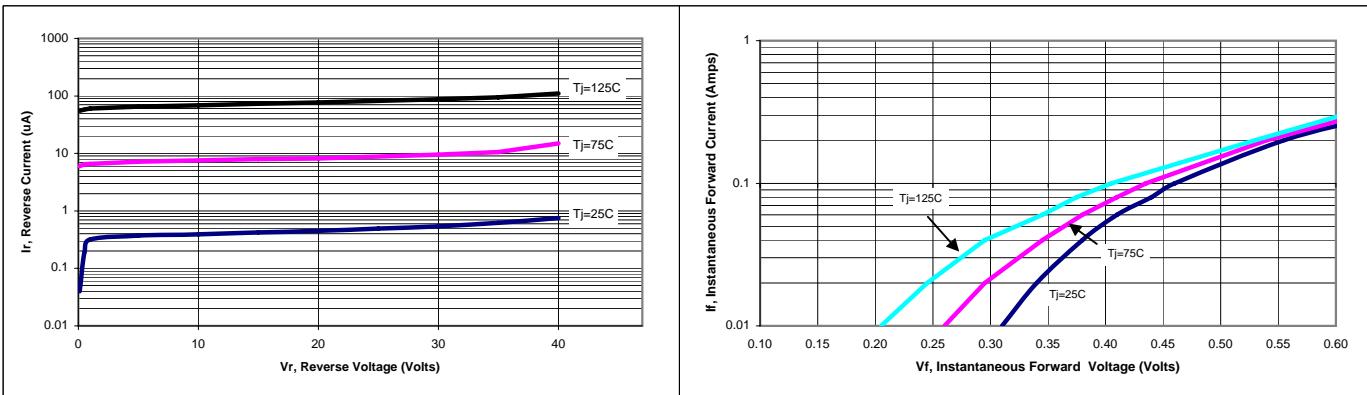
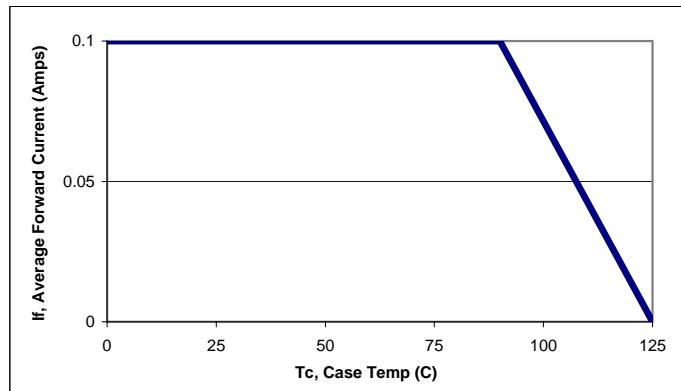
Maximum Ratings and Electrical Characteristics

(at 25°C unless otherwise specified)

	SYMBOL			UNITS
DC Blocking Voltage	V_{RM}	40		Volts
Working Peak Reverse Voltage	V_{RWM}			
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 0.49 0.46	Volts
Maximum Reverse Current at Rated V_{RM} $T_J = 25^\circ\text{C}$ $T_J = 75^\circ\text{C}$	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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