

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

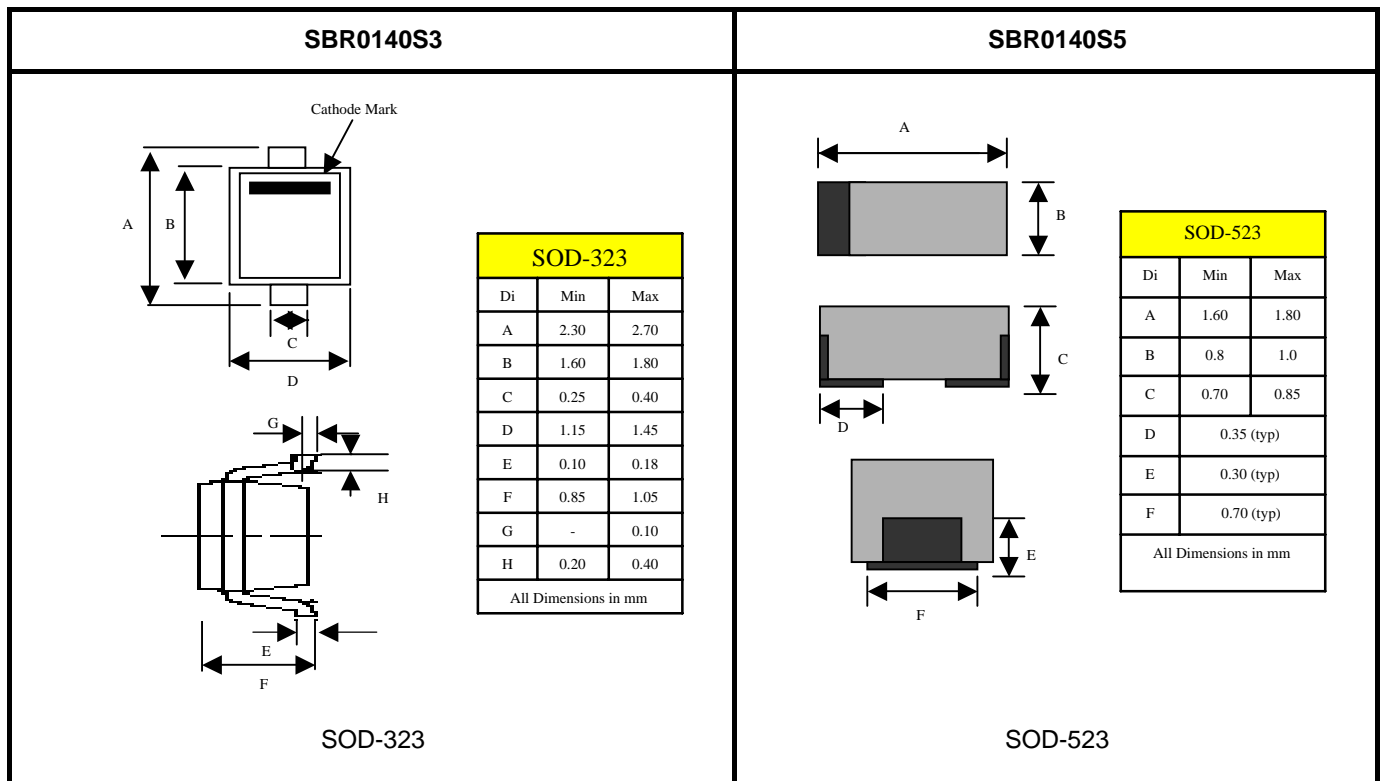
| Characteristics | Values | Units |
|----------------------------------|------------|------------|
| $I_{F(AV)}$ Rectangular Waveform | 0.10 | A |
| V_{RRM} | 40 | V |
| $V_F @ 0.1A, T_J = 75^\circ C$ | 0.43 | V, typ |
| T_J (operating/storage) | -65 to 125 | $^\circ C$ |

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



| 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%

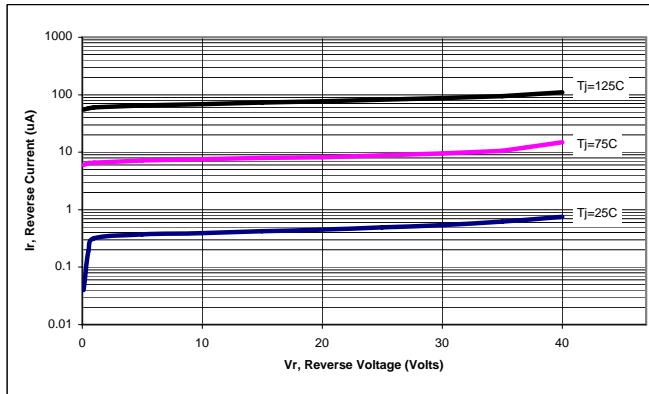


Figure 1: Typical Reverse Current

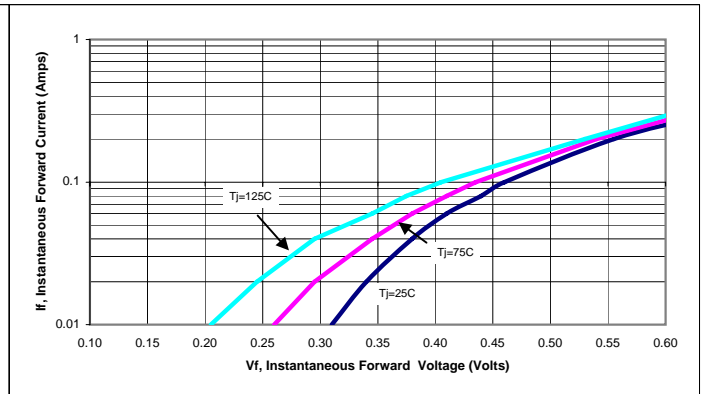


Figure 2: Typical Forward Voltage

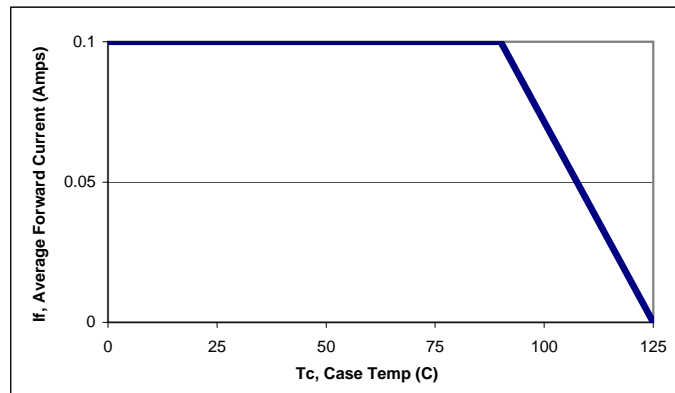


Figure 3: Current Derating, Case

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