

## Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- Schottky Barrier Rectifier
- Guard Ring Protection
- Low Forward Voltage
- High Current Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Halogen Free Available Upon Request By Adding Suffix "-HF"

## Maximum Ratings

- Operating Junction Temperature Range: -50°C to +150°C
- Storage Temperature Range: -50°C to +150°C
- Maximum Thermal Resistance: 35°C/W Junction to Ambient

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|----------------------------------------|---------------------|-----------------------------|
| SB280           | SB280          | 80V                                    | 56V                 | 80V                         |
| SB2010          | SB2010         | 100V                                   | 70V                 | 100V                        |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

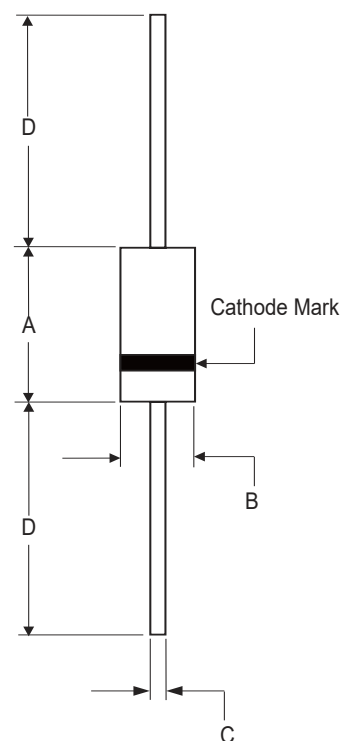
|                              |             |        |                                              |
|------------------------------|-------------|--------|----------------------------------------------|
| Average Forward Current      | $I_{F(AV)}$ | 2.0A   | $T_L=75^\circ\text{C}$                       |
| Maximum Surge Current        | $I_{FSM}$   | 50A    | 8.3ms, Half Sine                             |
| Max Peak Forward Voltage     | $V_{FM}$    | 0.85V  | $I_{FM}=2.0\text{A}; T_J=25^\circ\text{C}^*$ |
| Max Peak Reverse Current     | $I_{RM}$    | 0.01mA | $V_{RRM}, T_J=25^\circ\text{C}$              |
| Maximum Junction Capacitance | $C_J$       | 90pF   | $V_R=4.0\text{V}$<br>$f=1.0\text{MHz}$       |

\*Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 2%

Note : 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7a.

# 2.0 Amp Schottky Barrier Rectifier 80 to 100 Volts

## DO-15



| DIM | INCHES |       | MM    |       | NOTE |
|-----|--------|-------|-------|-------|------|
|     | MIN    | MAX   | MIN   | MAX   |      |
| A   | 0.230  | 0.300 | 5.80  | 7.60  |      |
| B   | 0.104  | 0.140 | 2.60  | 3.60  |      |
| C   | 0.026  | 0.035 | 0.70  | 0.90  |      |
| D   | 1.000  | ----- | 25.40 | ----- |      |

## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

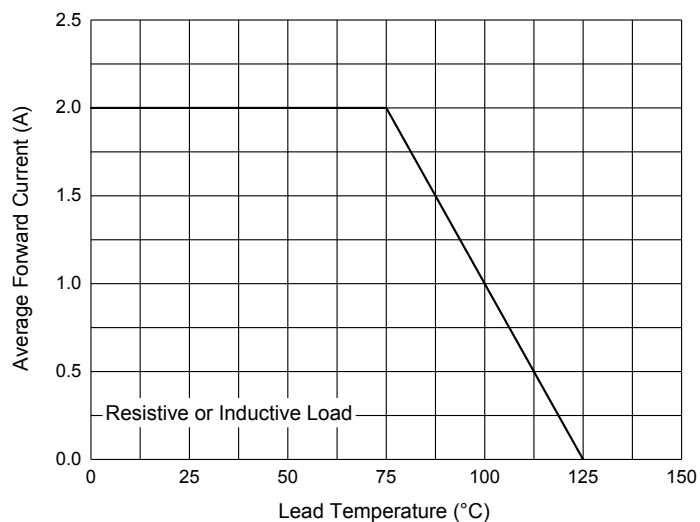


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

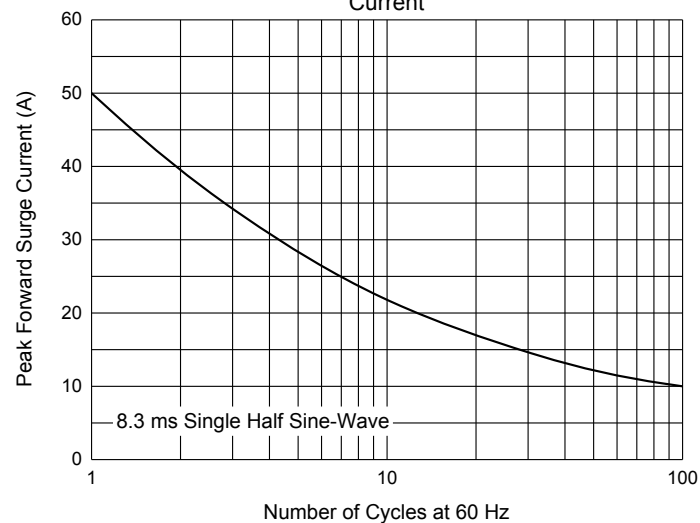


Fig. 3 - Typical Instantaneous Forward Characteristics

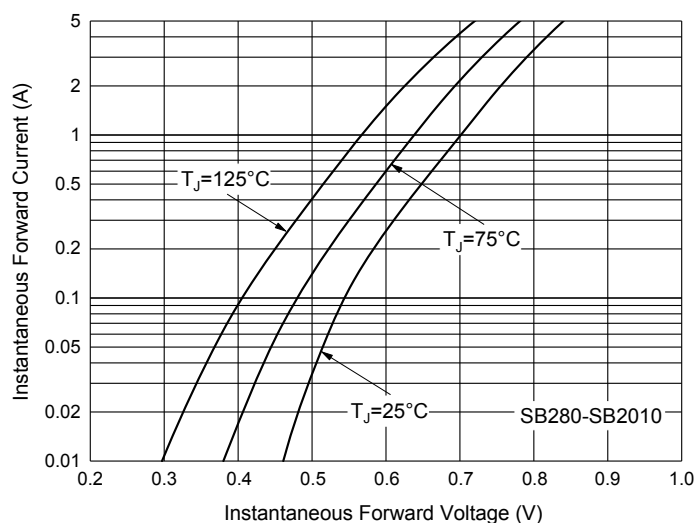
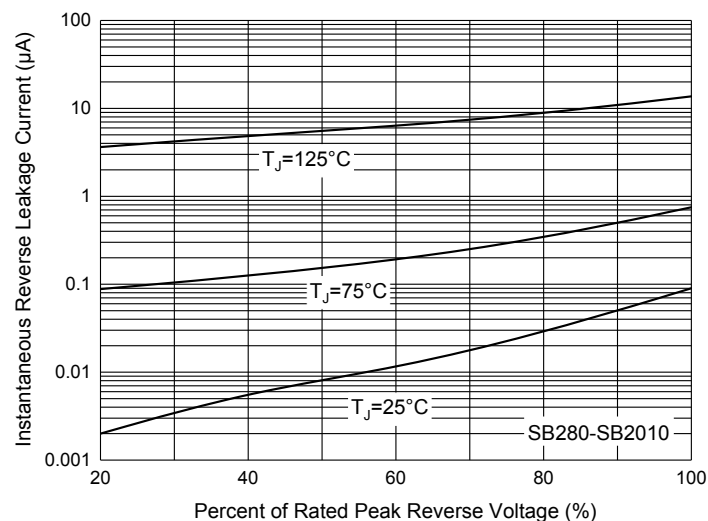


Fig. 4 - Typical Reverse Leakage Characteristics



## Ordering Information

| Device           | Packing                       |
|------------------|-------------------------------|
| (Part Number)-TP | Tape&Reel: 4Kpcs/Reel         |
| (Part Number)-AP | Ammo Packing: 3Kpcs/Ammo Box  |
| (Part Number)-BP | Bulk:500pcs/Box,25Kpcs/Carton |

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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