

Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- Schottky Barrier Rectifier
- Guard Ring Protection
- High Surge Current Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- For Use In Low Voltage, High Frequency Inverters, Free Wheeling, And Polarity Protection Applications
- Halogen Free Available Upon Request By Adding Suffix "-HF"

Maximum Ratings

- Operating Junction Temperature Range: -65°C to +150°C
- Storage Temperature Range: -65°C to +150°C
- Maximum Thermal Resistance: 15°C/W Junction To Lead
- Maximum Thermal Resistance: 15°C/W Junction To Ambient*

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| SB220 | SB220 | 20V | 14V | 20V |
| SB230 | SB230 | 30V | 21V | 30V |
| SB240 | SB240 | 40V | 28V | 40V |
| SB245 | SB245 | 45V | 31.5V | 45V |
| SB250 | SB250 | 50V | 35V | 50V |
| SB260 | SB260 | 60V | 42V | 60V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

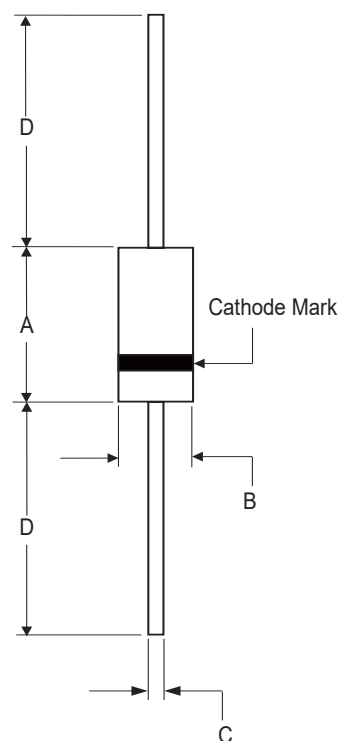
| | | | |
|--|-----------|----------------|--|
| Average Rectified Output Current* | I_o | 2.0A | $T_L=100^\circ\text{C}$ |
| Maximum Surge Current | I_{FSM} | 50A | 8.3ms, Half Sine |
| Max Peak Forward Voltage SB220-SB245 SB250-SB260 | V_{FM} | 0.5V 0.7V | $I_{FM}=2.0A;$ |
| Max Peak Reverse Current | I_{RM} | 0.1mA 10mA | $T_J=25^\circ\text{C};$ $T_J=100^\circ\text{C}$ |
| Typical Junction Capacitance SB220-SB245 SB250-SB260 | C_J | 170pF 140pF | $V_R=4.0V$ $f=1.0\text{MHz}$ |

*Valid provided that leads are kept at ambient temperature at a distance of 915mm from the case

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

2.0 Amp Schottky Rectifier 20 to 60 Volts

DO-15



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|-------|-------|-------|------|
| | INCHES | | MM | | |
| | 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

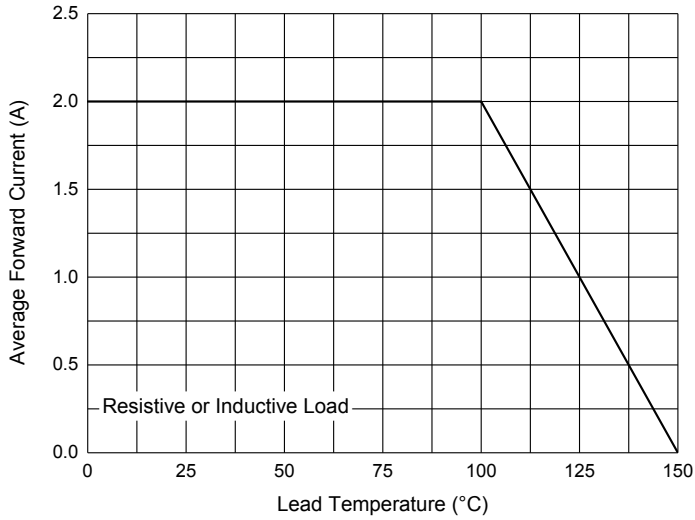


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

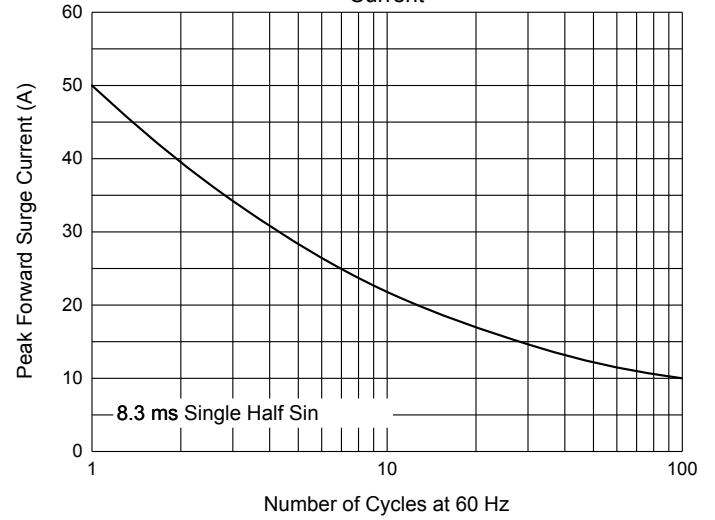


Fig. 3 - Typical Instantaneous Forward Characteristics

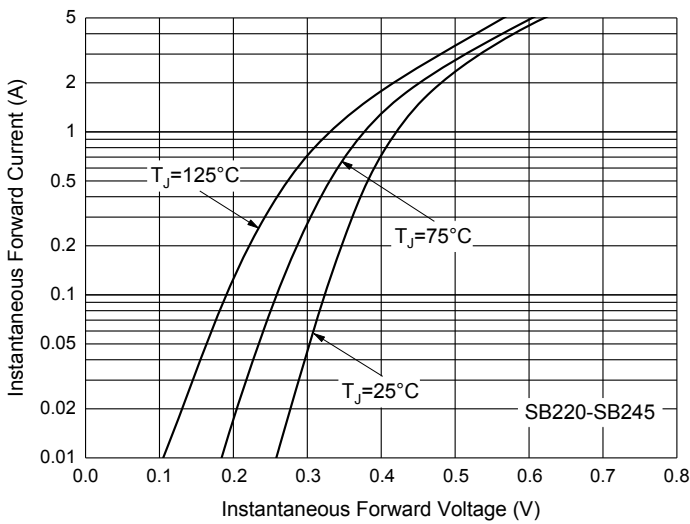


Fig. 4 - Typical Instantaneous Forward Characteristics

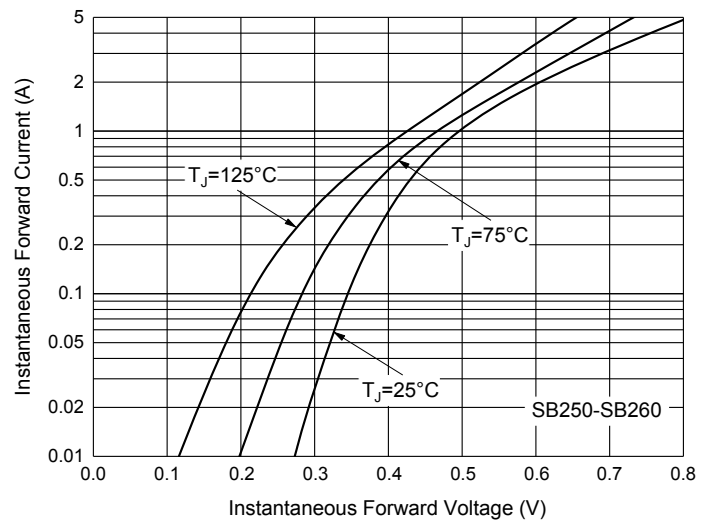


Fig. 5 - Typical Reverse Leakage Characteristics

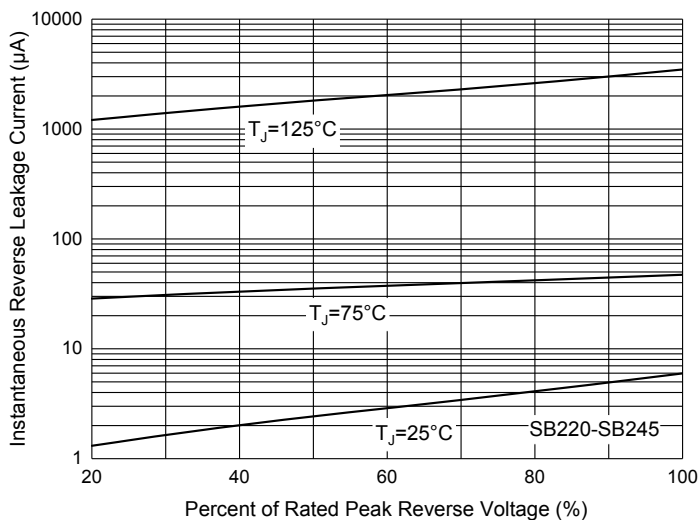
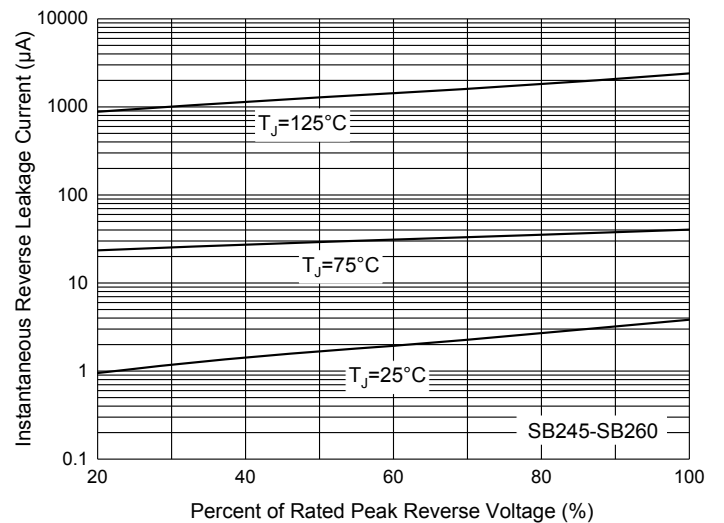


Fig. 6 - Typical Reverse Leakage Characteristics



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/Carlton |

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

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