

SS32B THRU SS320B

Schottky Rectifier

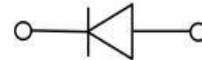
Features

- High efficiency operation
- Guard ring for enhanced ruggedness and long term reliability
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C



Typical Application

For use in switching power supplies, converters, freewheeling diodes and reverse battery protection.



Mechanical Data

- Package: DO-214AA(SMB)
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity: Cathode line denotes the cathode end

Maximum Ratings (Ta=25°C Unless otherwise specified)

| PARAMETER | Symbol | Unit | Conditions | SS3 | | | | | | | | | | | | | | | | |
|-------------------------------------|-------------|------|---|------------|----|----|----|----|------------|-----|-----|-----|--|--|--|--|--|--|--|--|
| | | | | 2B | 3B | 4B | 5B | 6B | 8B | 10B | 15B | 20B | | | | | | | | |
| Repetitive Peak Reverse Voltage | V_{RRM} | V | | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 200 | | | | | | | | |
| Average Forward Current | $I_{F(AV)}$ | A | 60Hz Half-sine wave, Resistance load, $T_L=100^\circ\text{C}$ | 3.0 | | | | | | | | | | | | | | | | |
| Surge(Nonrepetitive)Forward Current | I_{FSM} | A | 60HZ Half-sine wave, 1 cycle, $T_a=25^\circ\text{C}$ | 70 | | | | | | | | | | | | | | | | |
| Storage Temperature | T_{stg} | °C | | -55 ~ +150 | | | | | | | | | | | | | | | | |
| Junction Temperature | T_j | °C | | -55 ~ +125 | | | | | -55 ~ +150 | | | | | | | | | | | |

Electrical Characteristics (Ta=25°C Unless otherwise specified)

| PARAMETER | Symbol | Unit | Conditions | SS3 | | | | | | | | | | |
|-----------------------------|------------------|------|-------------------------------|-----|------------------|----|------|----|------|-----|------|-----|--|--|
| | | | | 2B | 3B | 4B | 5B | 6B | 8B | 10B | 15B | 20B | | |
| Peak Forward Voltage | V_{FM} | V | $I_{FM}=3.0A$ | 0.5 | | | 0.70 | | 0.85 | | 0.90 | | | |
| Peak Reverse Current | I_{RRM1} | mA | $V_{RM}=V_{RRM}$ | 0.5 | | | 0.1 | | | | | | | |
| | I_{RRM2} | | | 10 | | | 5 | | | | | | | |
| Thermal Resistance(Typical) | $R_{\theta J-A}$ | °C/W | Between junction and ambient | | 55 ¹⁾ | | | | | | | | | |
| | $R_{\theta J-L}$ | | Between junction and terminal | | 17 ¹⁾ | | | | | | | | | |

Notes:

¹⁾Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.6" x 0.6" (16 mm x 16 mm)copper pad areas



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■ Characteristics (Typical)

FIG1: Forward Current Derating Curve

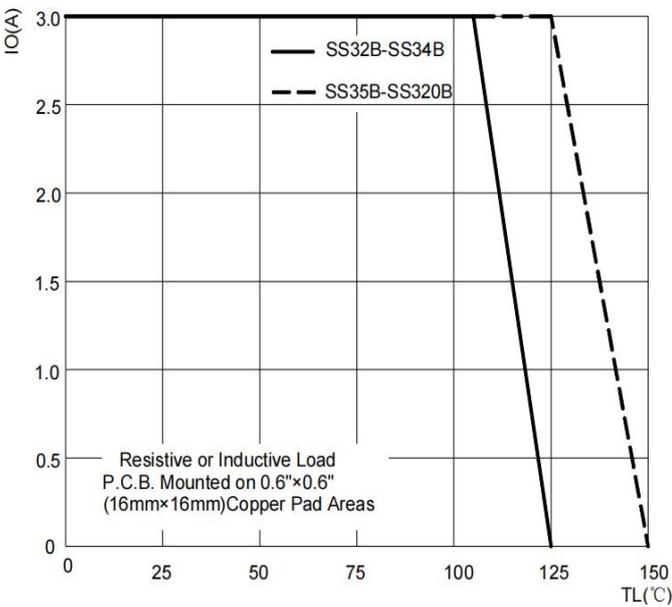


FIG2: Maximum Non-Repetitive Forward Surge Current

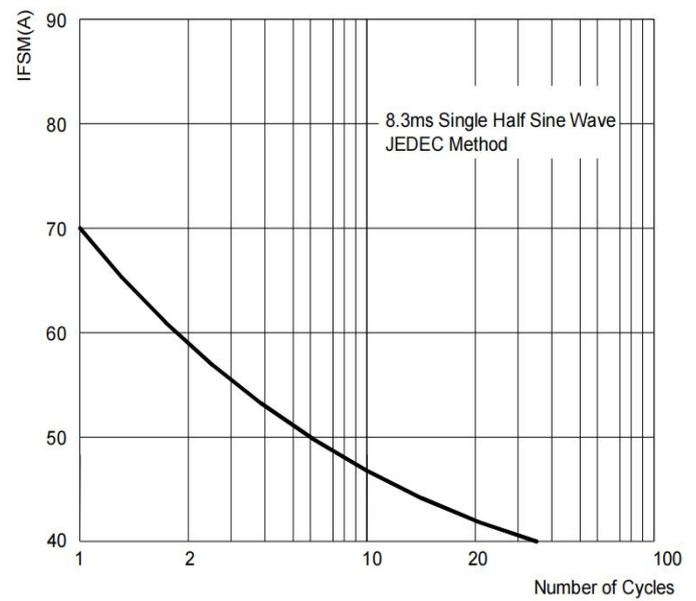


FIG3: Typical Forward Characteristics

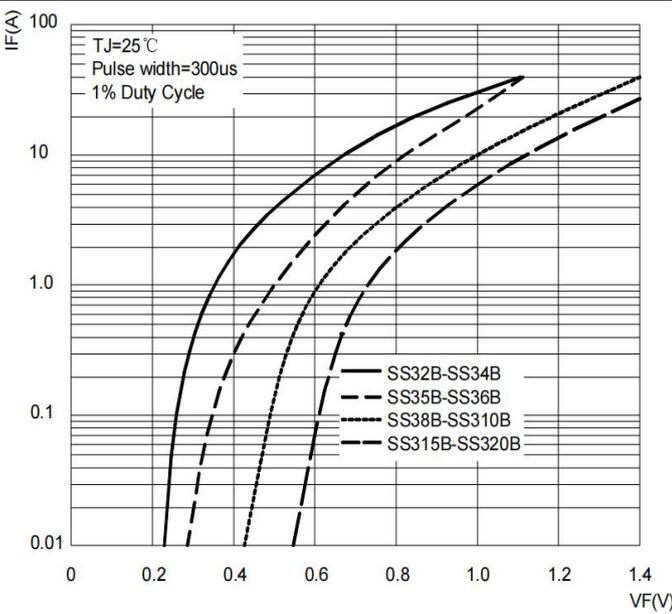
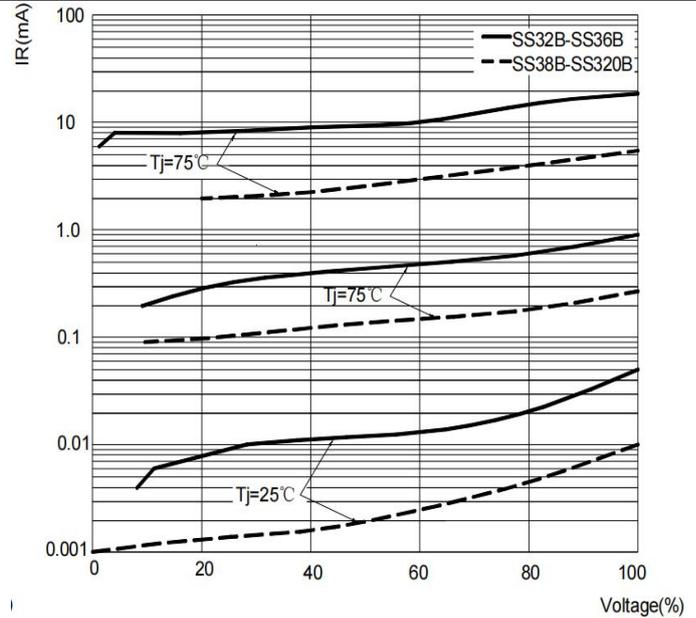


FIG4: Typical Reverse Characteristics



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Ordering Information (Example)

| PREFERRED | PACKAGE CODE | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|----------------|---------------|----------------------|-------------------------|----------------------------|---------------|
| SS32B ~ SS320B | DO-214AA(SMB) | 3000 | 6000 | 48000 | 13" reel |

Outline Dimensions

