

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

**REVERSE VOLTAGE: 20 --- 60 V
CURRENT: 2.0 A**

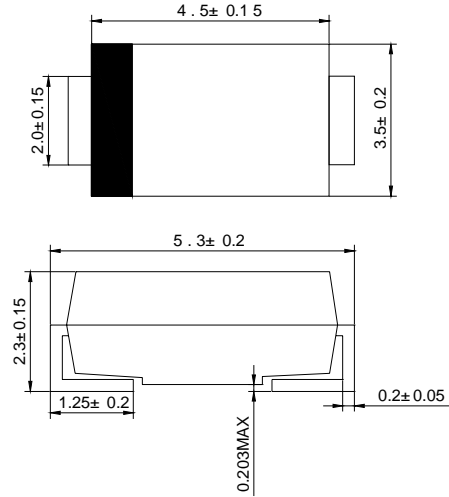
FEATURES

- Plastic package has Underwriters Laborator Flammability Classification 94V-0
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal silicon junction, majority carrier conduction
- High surge capability
- High current capability, low forward voltage drop
- Low power loss, high efficiency
- For use in low voltage high frequency inverters, free wheeling and polarity protection applications
- Guardring for overvoltage protection
- High temperature soldering guaranteed: 250°C/10 seconds at terminals

MECHANICAL DATA

- Case: JEDEC DO-214AA, molded plastic over passivated chip
- Terminals: Solder Plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.003 ounces, 0.093 gram

DO - 214AA(SMB)



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

| | | B220 | B230 | B240 | B250 | B260 | UNITS |
|--------------------------------------------------------------------------------------------------------------------|------------|--------------|------|------|--------------|------|-------|
| Maximum recurrent peak reverse voltage | V_{RRM} | 20 | 30 | 40 | 50 | 60 | V |
| Maximum RMS voltage | V_{RWS} | 14 | 21 | 28 | 35 | 42 | V |
| Maximum DC blocking voltage | V_{DC} | 20 | 30 | 40 | 50 | 60 | V |
| Maximum average forward rectified current at T_L (SEE FIG. 1) (NOTE 2) | $I_{(AV)}$ | 2.0 | | | | | A |
| Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 50.0 | | | | | A |
| Maximum instantaneous forward voltage at 2.0A (NOTE.1) | V_F | 0.5 | | | 0.7 | | V |
| Maximum DC reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage (NOTE1) @ $T_A=100^\circ\text{C}$ | I_R | 0.5 | | | | | mA |
| | | 20 | | | | | |
| Typical thermal resistance (NOTE2) | R_{JL} | 15.0 | | | | | °C/W |
| Operating junction and storage temperature range | T_{STG} | -55 --- +150 | | | | | °C |
| Storage temperature range | T_J | -55 --- +150 | | | -55 --- +150 | | °C |

NOTE: 1. Pulse test: 300 μs pulse width, 1% duty cycle
2. P.C.B. mounted with 0.55"X0.55" (14.0X14.0mm²) copper pad areas

FIG.1 – FORWARD DERATING CURVE

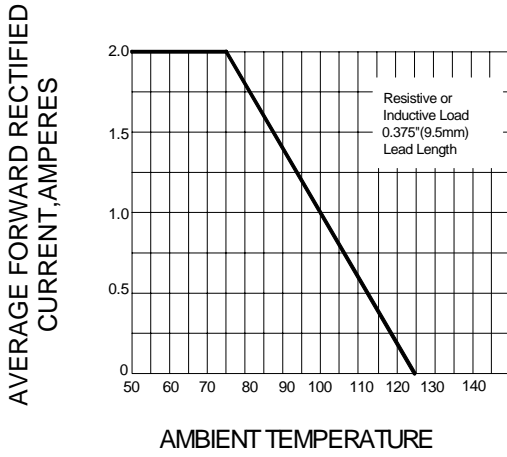


FIG.2- PEAK FORWARD SURGE CURRENT

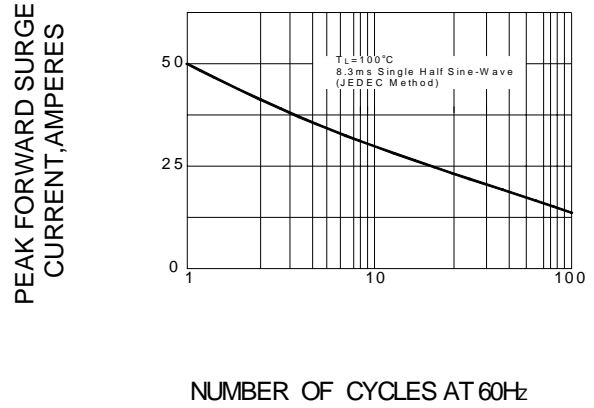


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

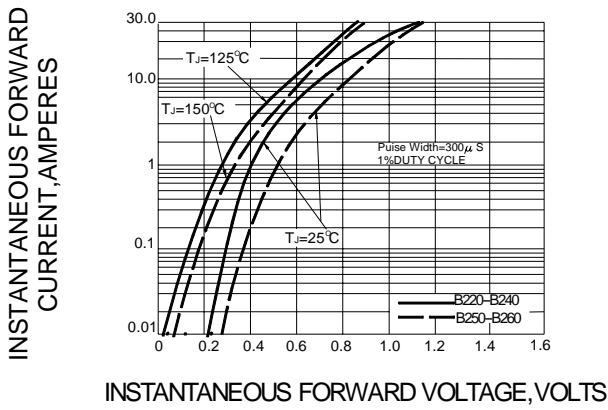


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

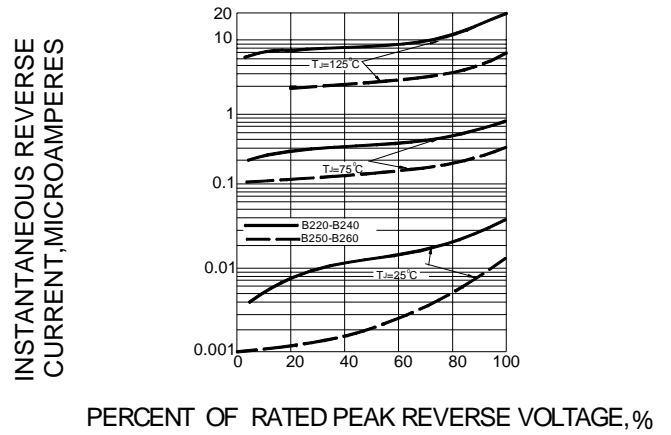


FIG.5-TYPICAL JUNCTION CAPACITANCE

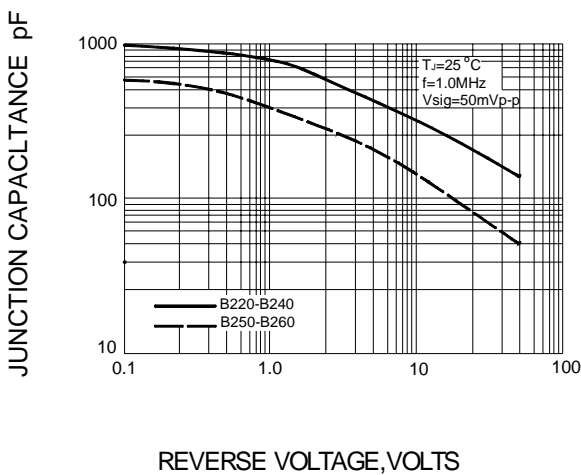


FIG.6- TYPICAL TRANSIENT THERMAL IMPEDANCE

