

SCHOTTKY BARRIER RECTIFIER

REVERSE VOLTAGE: 20 --- 60 V
CURRENT: 1.0 A

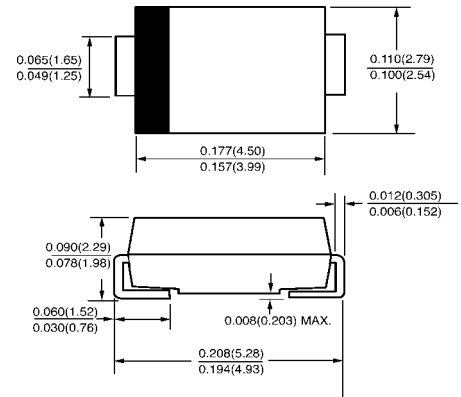
FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal silicon junction, majority carrier conduction
- High surge capability
- 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-214AC, molded plastic over passivated chip
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.002 ounces, 0.064 gram

DO - 214AC(SMA)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

| | | B120 | B130 | B140 | B150 | B160 | UNITS |
|--|------------|---------------|------|------|------|------|--------------------|
| | | B120 | B130 | B140 | B150 | B160 | |
| Device marking code | | B120 | B130 | B140 | B150 | B160 | |
| 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_c (SEE FIG.1) | $I_{(AV)}$ | 1.0 | | | | | A |
| Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 30.0 | | | | | A |
| Maximum instantaneous forward voltage at 1.0A (NOTE.1) | V_F | 0.5 | | | 0.7 | | V |
| Maximum DC reverse current (NOTE.1) @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$ | I_R | 0.5 | | | 10.0 | | mA |
| Typical thermal resistance (NOTE. 2) | R_{JA} | 88.0 | | | | | $^\circ\text{C/W}$ |
| | R_{JL} | 20.0 | | | | | |
| Storage temperature range Operating junction and storage temperature range | T_j | - 55 --- +125 | | | | | $^\circ\text{C}$ |
| Storage temperature range | T_{STG} | - 55 --- +150 | | | | | $^\circ\text{C}$ |

NOTE: 1. Pulse test: 300 μs pulse width, 1% duty cycle
2. P.C.B. mounted with 0.2" X 0.2" (5.0 X 5.0 mm²) copper pad areas

FIG.1 – FORWARD DERATING CURVE

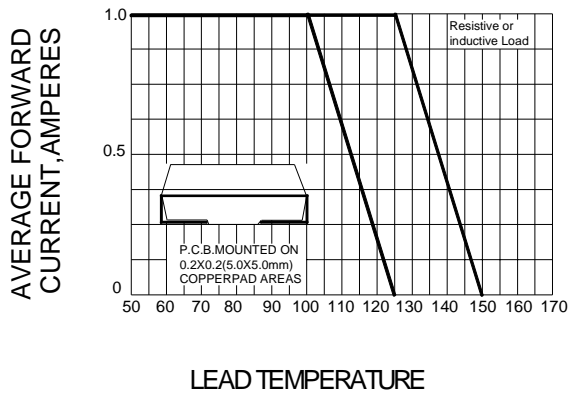


FIG.2– PEAK FORWARD SURGE CURRENT

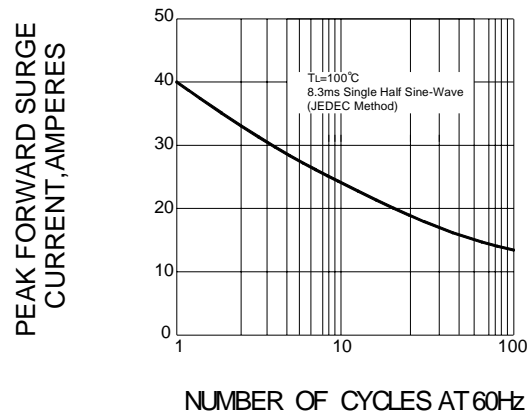


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

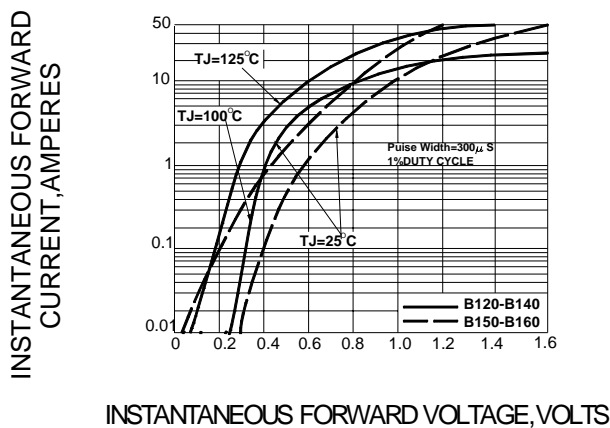


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

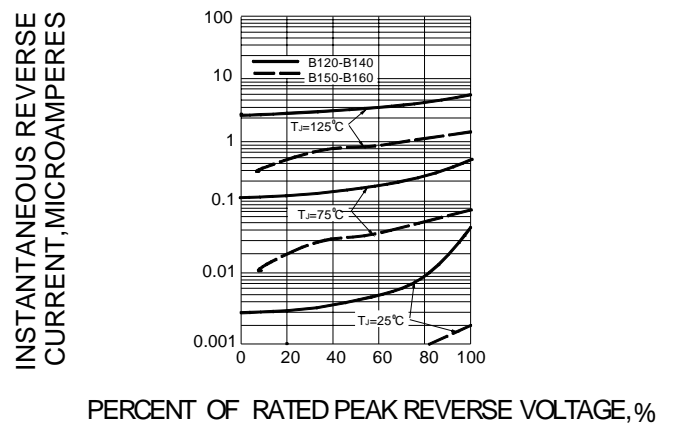


FIG.5–TYPICAL JUNCTION CAPACITANCE

