

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - 20 to 200 Volts
FORWARD CURRENT - 2.0 Ampere

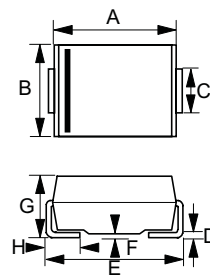
FEATURES

- Metal-Semiconductor junction with guard ring
- Epitaxial construction
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

- Case : SMB , molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.095 grams
- Mounting position : Any

SMB



| SMB | | |
|------|------|------|
| DIM. | MIN. | MAX. |
| A | 4.06 | 4.70 |
| B | 3.30 | 3.94 |
| C | 1.91 | 2.11 |
| D | 0.15 | 0.31 |
| E | 5.08 | 5.59 |
| F | 0.05 | 0.20 |
| G | 2.13 | 2.44 |
| H | 0.76 | 1.52 |

All Dimensions in millimeter

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

| PARAMETER | SYMBOL | B220 | B230 | B240 | B250 | B260 | B280 | B2100 | B2150 | B2200 | UNIT | |
|--|--------------------------------------|-------------|------|------|------|------|-------------|-------|-------|-------|------|------|
| Maximum repetitive peak reverse voltage | VRRM | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 200 | V | |
| Maximum RMS voltage | VRMS | 14 | 21 | 28 | 35 | 42 | 56 | 70 | 105 | 140 | V | |
| Maximum DC blocking voltage | VDC | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 200 | V | |
| Maximum average forward rectified current | I _F | 2.0 | | | | | | | | | A | |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load | I _{FSM} | 50 | | | | | | | | | A | |
| Maximum instantaneous I _F =2A@25°C | V _F | 0.50 | | 0.70 | | 0.85 | | 0.87 | | 0.9 | V | |
| Maximum DC Reverse Current @TA=25°C at Rated DC Blocking Voltage @TA=100°C | I _R | 0.5 | | | 10.0 | | | 0.2 | | | 5.0 | mA |
| Typical Junction Capacitance | C _J | 70 | | 50 | | 50 | | 40 | | 40 | pF | |
| Typical Thermal Resistance | R _{θJA} R _{θJC} | 80 | | | | | | 50 | | | | °C/W |
| Operating Temperature Range | T _J | -55 to +125 | | | | | -55 to +125 | | | | | °C |
| Storage Temperature Range | T _{STG} | -55 to +150 | | | | | -55 to +150 | | | | | °C |

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

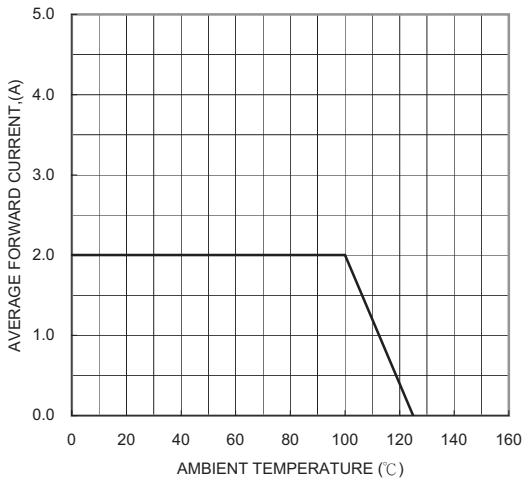


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

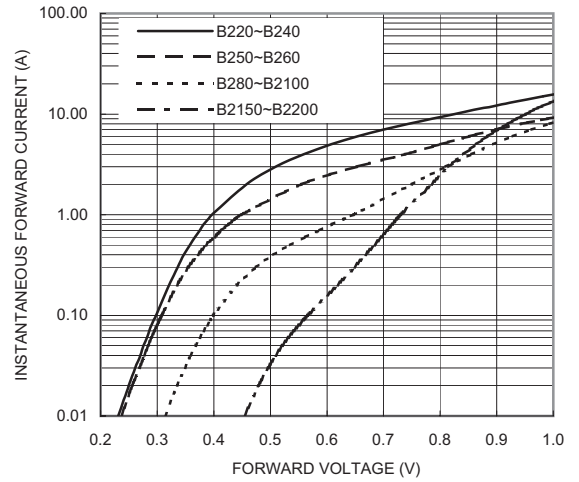


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

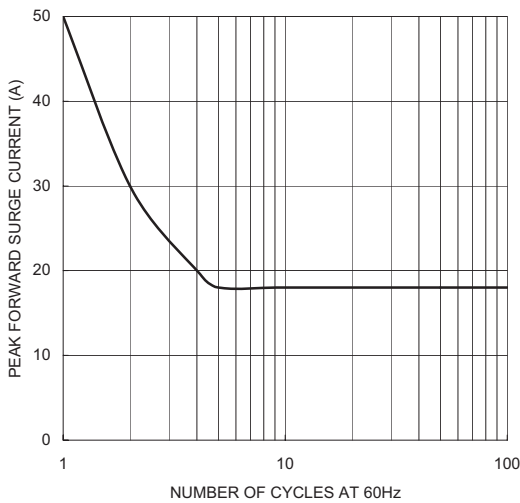


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

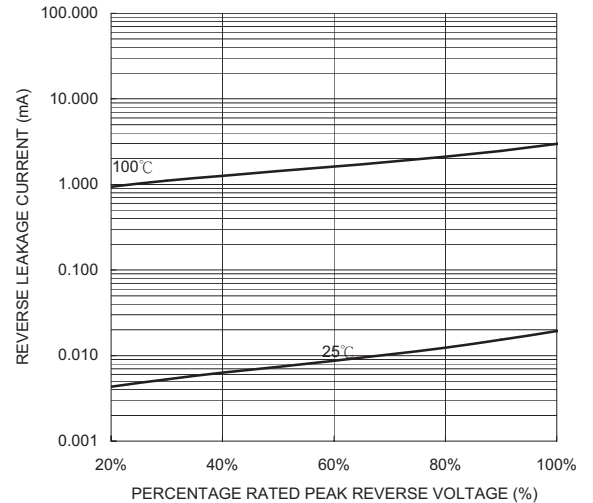


FIG. 5-TYPICAL JUNCTION CAPACITANCE

