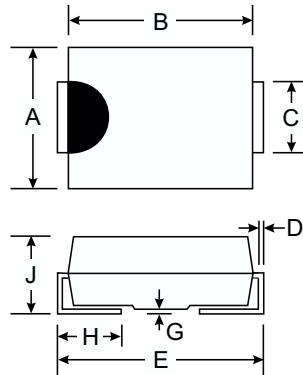


Features

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- Surge Overload Rating to 50A Peak
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Application
- High Temperature Soldering: 260°C/10 Second at Terminal
- Plastic Material - UL Flammability Classification 94V-0



| Dim | SMA | | SMB | |
|----------------------|------|------|------|------|
| | Min | Max | Min | Max |
| A | 2.29 | 2.92 | 3.30 | 3.94 |
| B | 4.00 | 4.60 | 4.06 | 4.57 |
| C | 1.27 | 1.63 | 1.96 | 2.21 |
| D | 0.15 | 0.31 | 0.15 | 0.31 |
| E | 4.80 | 5.59 | 5.00 | 5.59 |
| G | 0.10 | 0.20 | 0.10 | 0.20 |
| H | 0.76 | 1.52 | 0.76 | 1.52 |
| J | 2.01 | 2.62 | 2.00 | 2.62 |
| All Dimensions in mm | | | | |

Mechanical Data

- Case: Molded Plastic
- Terminals: Solder Plated Terminal - Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band or Cathode Notch
- Approx. Weight: SMA 0.064 grams
SMB 0.093 grams
- Mounting Position: Any
- Marking: Type Number

No Suffix Designates SMB Package
"A" Suffix Designates SMA Package

Maximum Ratings and Electrical Characteristics @ T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| Characteristic | Symbol | B220/A | B230/A | B240/A | B250/A | B260/A | Unit |
|--|-----------------------------------|-------------|--------|--------|--------|--------|------|
| Peak Repetitive Reverse Voltage | V _{RRM} | 20 | 30 | 40 | 50 | 60 | V |
| Working Peak Reverse Voltage | V _{RWM} | | | | | | |
| DC Blocking Voltage | V _R | | | | | | |
| RMS Reverse Voltage | V _{R(RMS)} | 14 | 21 | 28 | 35 | 42 | V |
| Average Rectified Output Current @ T _T = 100°C | I _O | 2.0 | | | | | A |
| Non-Repetitive Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 50 | | | | | A |
| Forward Voltage @ I _F = 2.0A | V _{FM} | 0.50 | | | 0.70 | | V |
| Peak Reverse Current @ T _A = 25°C at Rated DC Blocking Voltage @ T _A = 100°C | I _{RM} | 0.5 | | | 20 | | mA |
| Typical Junction Capacitance (Note 2) | C _J | 200 | | | | | pF |
| Typical Thermal Resistance, Junction to Terminal | R _{θJT} | 20 | | | | | K/W |
| Typical Thermal Resistance, Junction to Ambient (Note 1) | R _{θJA} | 25 | | | | | K/W |
| Operating and Storage Temperature Range | T _J , T _{STG} | -65 to +150 | | | | | °C |

- Notes: 1. Thermal Resistance: Junction to terminal, unit mounted on PC board with 5.0 mm² (0.013 mm thick) copper pad as heat sink.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

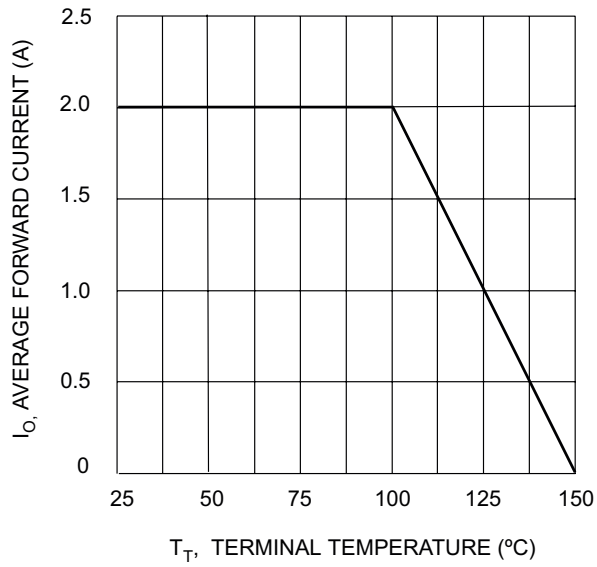


Fig. 1 Forward Current Derating Curve

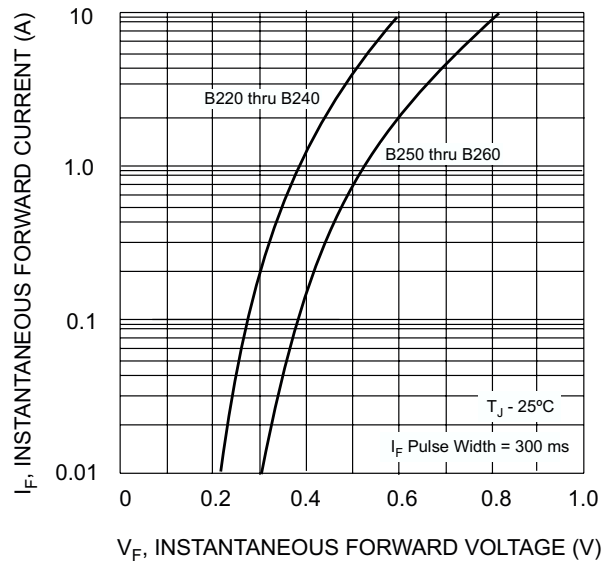


Fig. 2 Typical Forward Characteristics

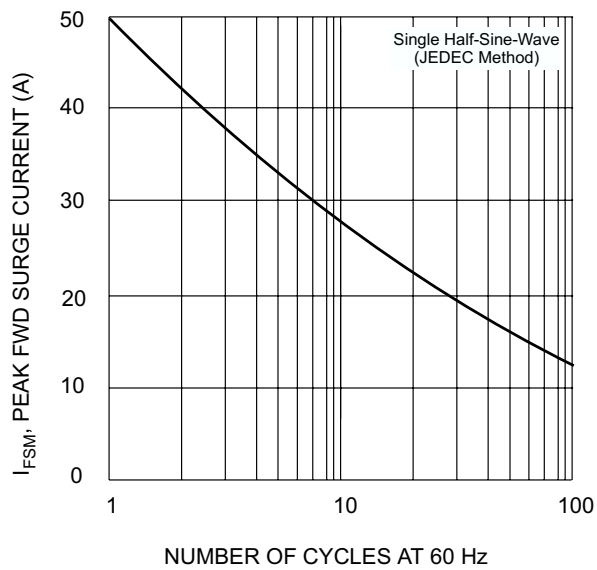


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

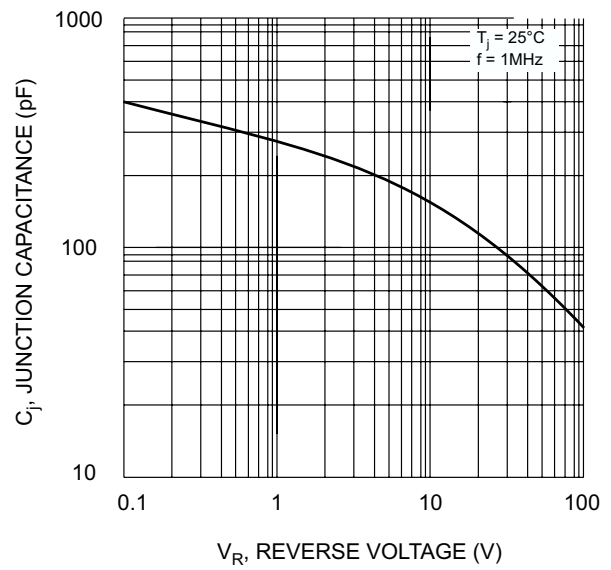


Fig. 4 Typical Junction Capacitance

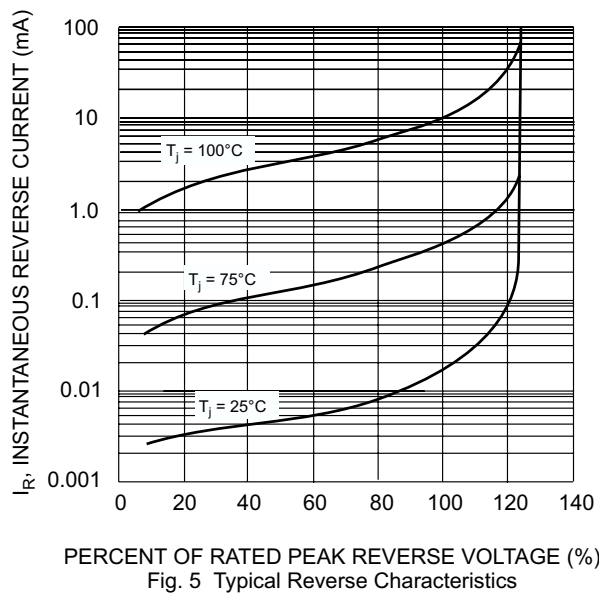


Fig. 5 Typical Reverse Characteristics