

SB1630PT – SB1660PT

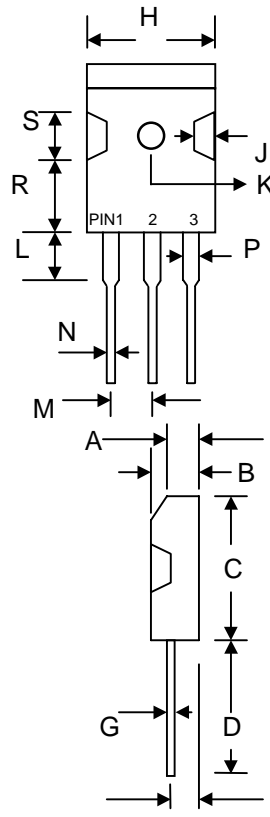
16A SCHOTTKY BARRIER RECTIFIER

Features

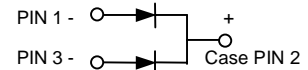
- Schottky Barrier Chip
- Guard Ring for Transient Protection
- High Current Capability, Low Forward
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-O

Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-750, Method 2026
- Polarity: As Marked on Body
- Weight: 5.6 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



| TO-3P | | |
|----------------------|--------------|--------|
| Dim | Min | Max |
| A | 3.20 | 3.50 |
| B | 4.59 | 5.16 |
| C | 20.80 | 21.30 |
| D | 19.70 | 20.20 |
| E | 2.10 | 2.40 |
| G | 0.51 | 0.76 |
| H | 15.90 | 16.40 |
| J | 1.70 | 2.70 |
| K | 3.10 Ø | 3.30 Ø |
| L | 3.50 | 4.51 |
| M | 5.20 | 5.70 |
| N | 1.12 | 1.22 |
| P | 2.90 | 3.30 |
| R | 11.70 | 12.80 |
| S | 4.30 Typical | |
| All Dimensions in mm | | |



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 | SB 1630PT | SB 1635PT | SB 1640PT | SB 1645PT | SB 1650PT | SB 1660PT | Unit |
|---|-----------------------------------|-------------|-----------|-----------|-----------|-----------|-----------|------|
| Peak Repetitive Reverse Voltage | V _{RRM} | 30 | 35 | 40 | 45 | 50 | 60 | V |
| Working Peak Reverse Voltage | V _{VRM} | | | | | | | |
| DC Blocking Voltage | V _R | | | | | | | |
| RMS Reverse Voltage | V _{R(RMS)} | 21 | 24.5 | 28 | 31.5 | 35 | 42 | V |
| Average Rectified Output Current @T _C = 95°C | I _O | 16 | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 250 | | | | | | A |
| Forward Voltage @I _F = 8.0A | V _{FM} | 0.55 | | | | 0.70 | | V |
| Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 100°C | I _{RM} | 0.5 | | | | 50 | | mA |
| Typical Junction Capacitance (Note 1) | C _j | 700 | | | | | | pF |
| Typical Thermal Resistance Junction to Case (Note 2) | R _{θJC} | 3.5 | | | | | | K/W |
| Operating and Storage Temperature Range | T _j , T _{STG} | -65 to +150 | | | | | | °C |

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
 2. Thermal resistance junction to case mounted on heatsink.

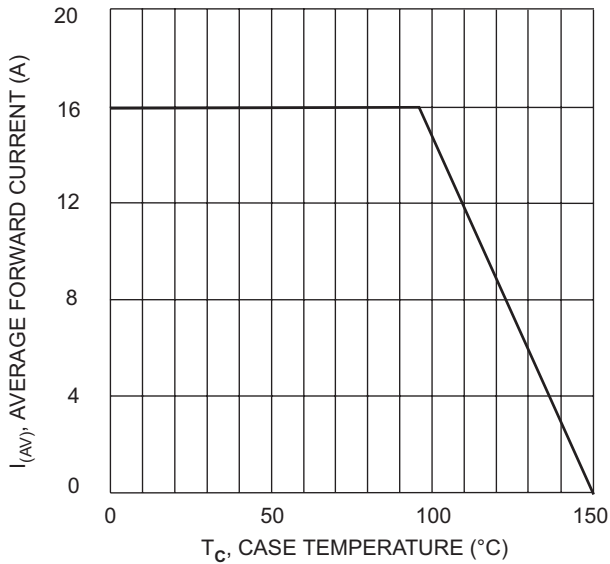


Fig. 1 Forward Current Derating Curve

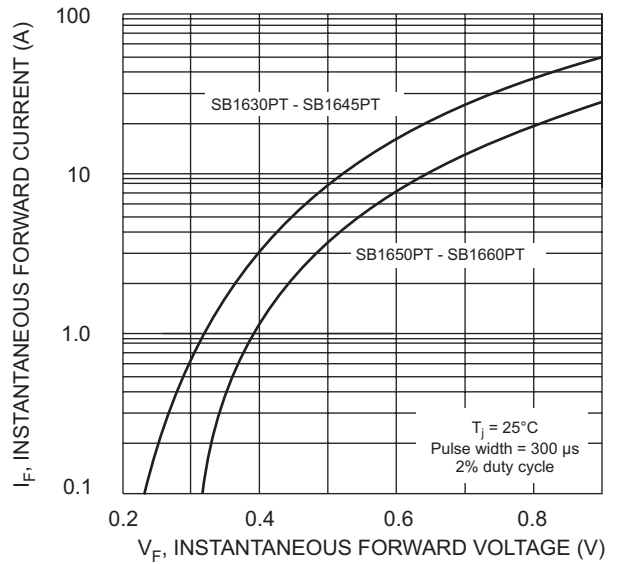


Fig. 2 Typical Forward Characteristics per Element

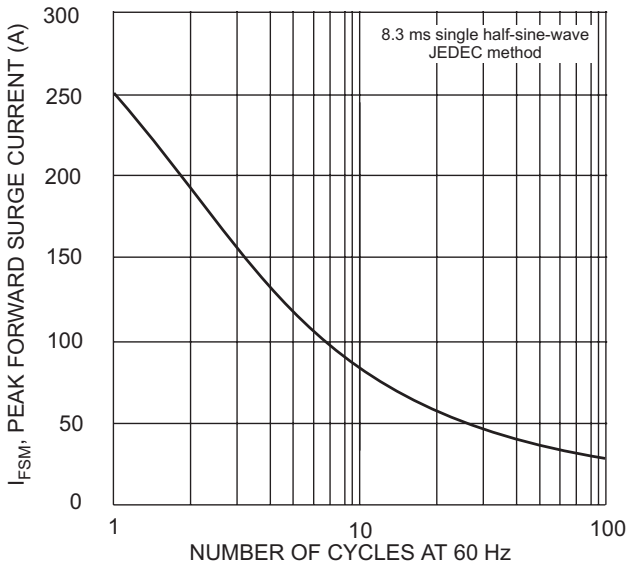


Fig. 3 Max Non-Repetitive Surge Current

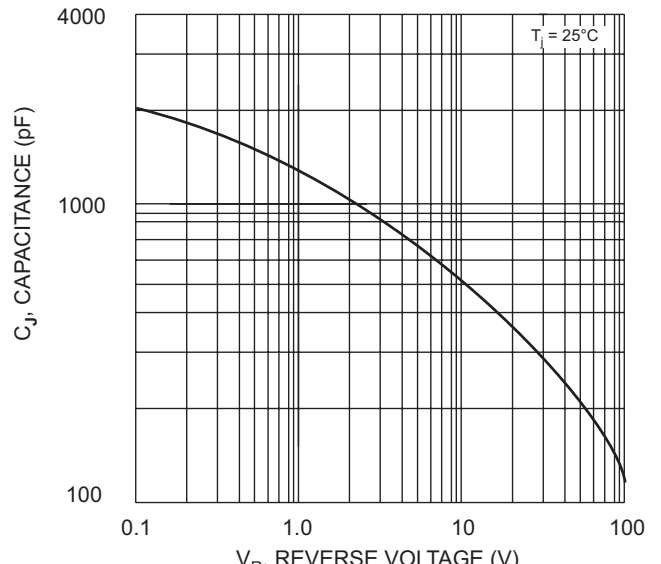


Fig. 4 Typical Junction Capacitance per Element

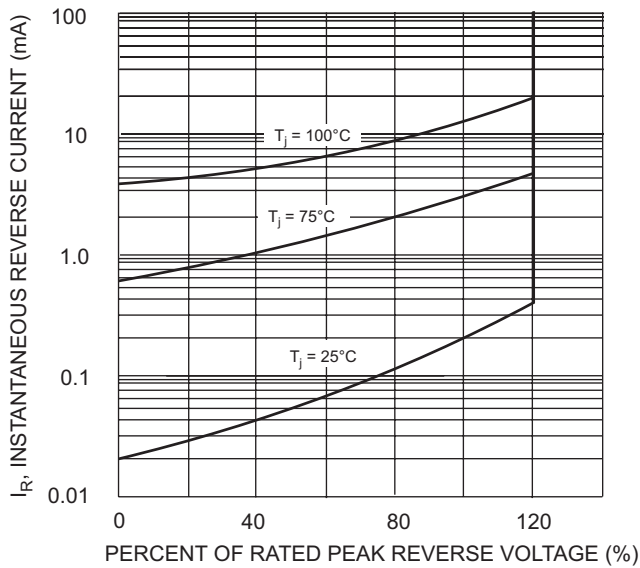


Fig. 5 Typical Reverse Characteristics per Element