



**THE DATASHEET OF
SBL3035PT**

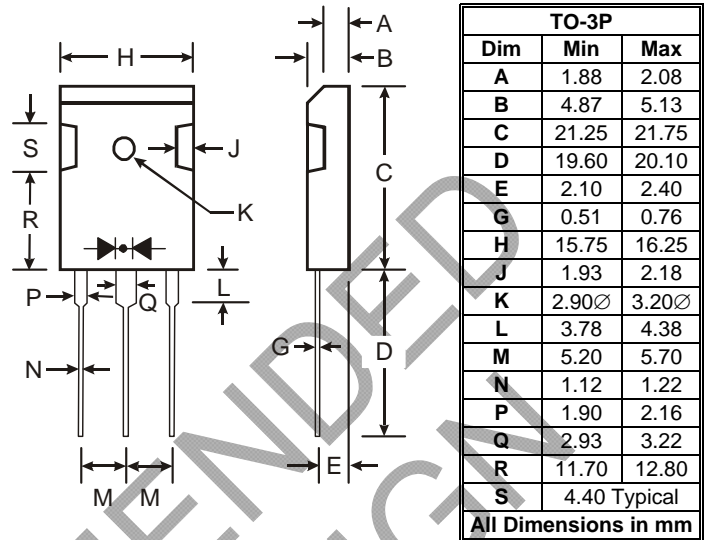


Features

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- Low Power Loss, High Efficiency
- High Surge Capability
- High Current Capability and Low Forward Voltage Drop
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Application
- **Lead Free Finish, RoHS Compliant (Note 3)**

Mechanical Data

- Case: TO-3P
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Finish - Tin. Solderable per MIL-STD-202, Method 208 (E3)
- Polarity: As Marked on Body
- Ordering Information: See Page 3
- Marking: Type Number
- Weight: 5.6 grams (approximate)



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 | SBL 3030PT | SBL 3035PT | SBL 3040PT | SBL 3045PT | SBL 3050PT | SBL 3060PT | Unit |
|---|-----------------------------------|-------------|------------|------------|------------|------------|------------|------|
| Peak Repetitive Reverse Voltage | V _{RRM} | | | | | | | |
| Working Peak Reverse Voltage | V _{RWM} | 30 | 35 | 40 | 45 | 50 | 60 | V |
| 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 (Note 1) | I _O | 30 | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load | I _{FSM} | 275 | | | | | | A |
| Forward Voltage Drop @ I _F = 15A, T _C = 25°C | V _{FM} | 0.55 | | | | 0.70 | | V |
| Peak Reverse Current @ T _C = 25°C | I _{RM} | 1.0 | | | | | | mA |
| at Rated DC Blocking Voltage @ T _C = 100°C | | 75 | | | | | | |
| Typical Total Capacitance (Note 2) | C _T | 1100 | | | | | | pF |
| Typical Thermal Resistance Junction to Case (Note 1) | R _{θJc} | 2.0 | | | | | | °C/W |
| Operating and Storage Temperature Range | T _J , T _{STG} | -65 to +150 | | | | | | °C |

- Notes:
1. Thermal resistance junction to case mounted on heatsink.
 2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
 3. RoHS revision 13.2.2003. Glass and high temperature solder exemptions applied, see EU Directive Annex Notes 5 and 7.

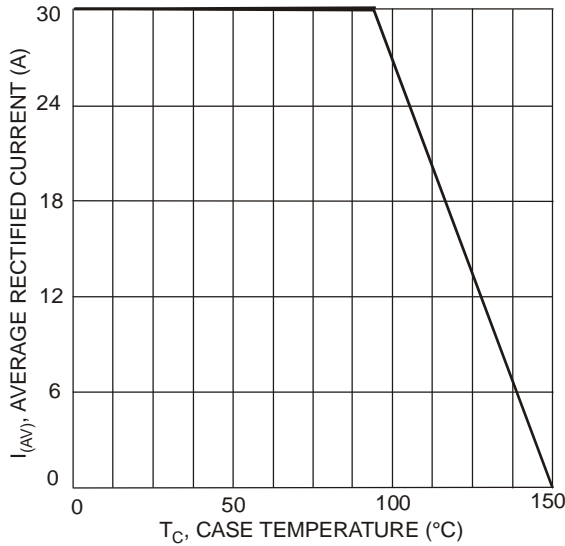


Fig. 1 Forward Derating Curve

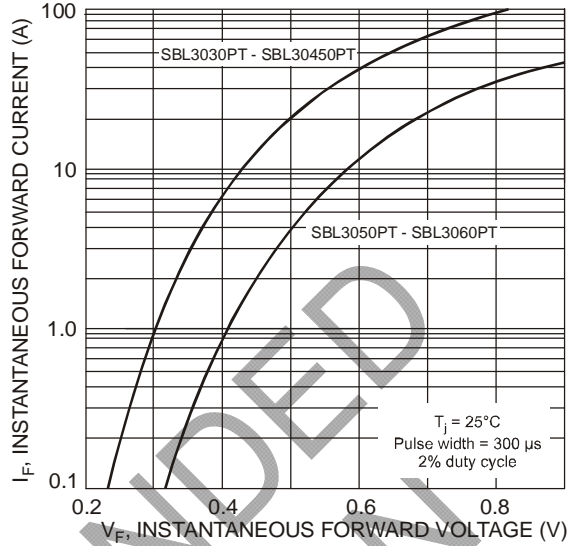


Fig. 2 Typical Fwd Characteristics per Element

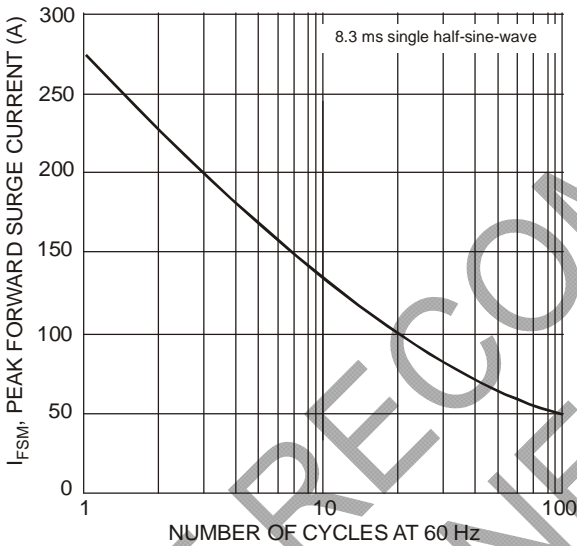


Fig. 3 Max Non-Repetitive Forward Surge Current

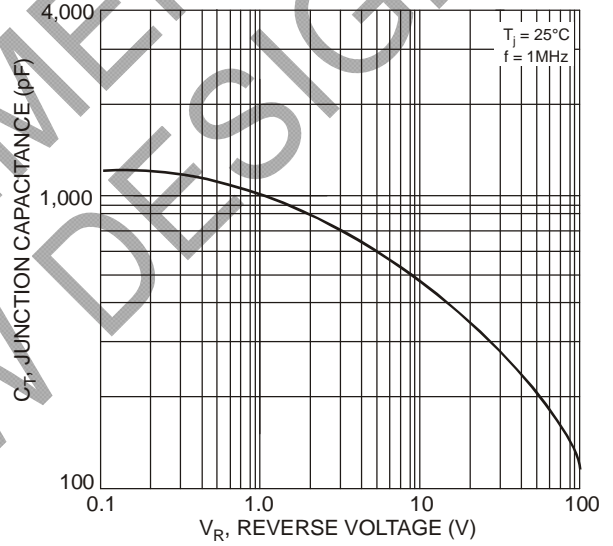


Fig. 4 Typical Capacitance per Element

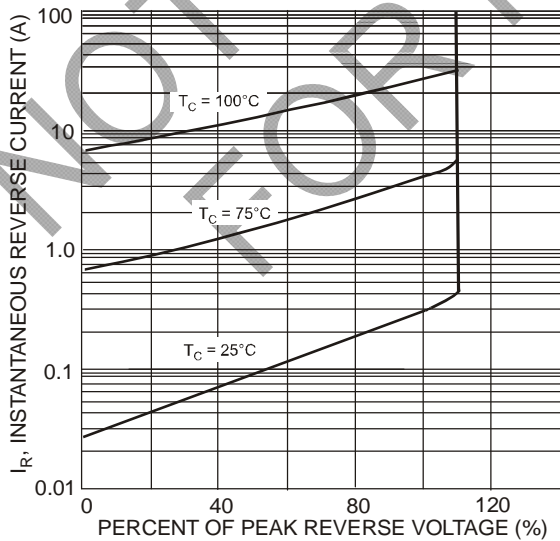


Fig. 5 Typical Reverse Characteristics per Element

Ordering Information (Note 4)

| Device | Packaging | Shipping |
|-----------|-----------|----------|
| SBL3030PT | TO-3P | 30/Tube |
| SBL3035PT | TO-3P | 30/Tube |
| SBL3040PT | TO-3P | 30/Tube |
| SBL3045PT | TO-3P | 30/Tube |
| SBL3050PT | TO-3P | 30/Tube |
| SBL3060PT | TO-3P | 30/Tube |

Notes: 4. For packaging details, visit our website at <http://www.diodes.com/datasheets/ap02008.pdf>.

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