# SB3030PT – SB3060PT

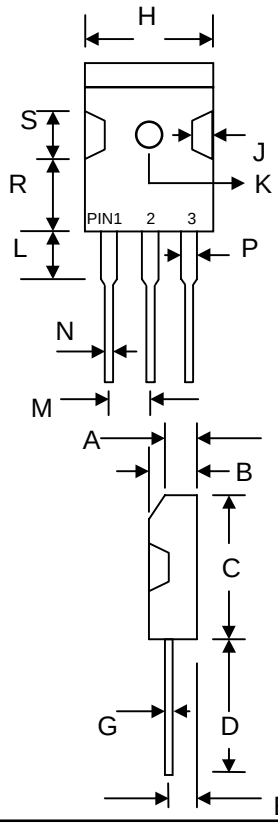
## 30A SCHOTTKY BARRIER RECTIFIER

## Features

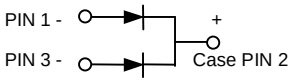
- Schottky Barrier Chip
- Guard Ring for Transient Protection
- High Current Capability, Low Forward
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-O

## 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 3030PT | SB 3035PT | SB 3040PT | SB 3045PT | SB 3050PT | SB 3060PT | Unit |
|---|---|---|---|---|---|---|---|---|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | 30 | 35 | 40 | 45 | 50 | 60 | V |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 21 | 24.5 | 28 | 31.5 | 35 | 42 | V |
| Average Rectified Output Current @$T_C$ = 95°C | $I_O$ | 30 | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | $I_{FSM}$ | 275 | | | | | | A |
| Forward Voltage @$I_F$ = 15A | $V_{FM}$ | 0.55 | | | | 0.70 | | V |
| Peak Reverse Current @$T_A$ = 25°C<br>At Rated DC Blocking Voltage @$T_A$ = 100°C | $I_{RM}$ | 1.0<br>75 | | | | | | mA |
| Typical Junction Capacitance (Note 1) | $C_j$ | 1100 | | | | | | pF |
| Typical Thermal Resistance Junction to Case (Note 2) | $R_{\theta JC}$ | 2.0 | | | | | | 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.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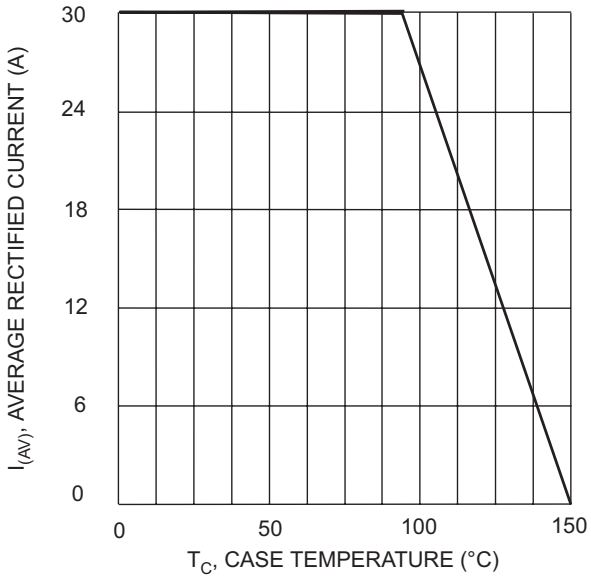


Fig. 1 Forward Derating Curve

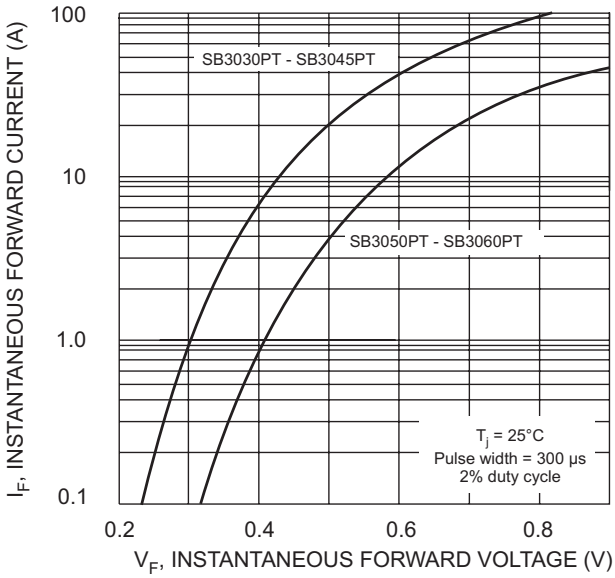


Fig. 2 Typical Fwd Characteristics per Element

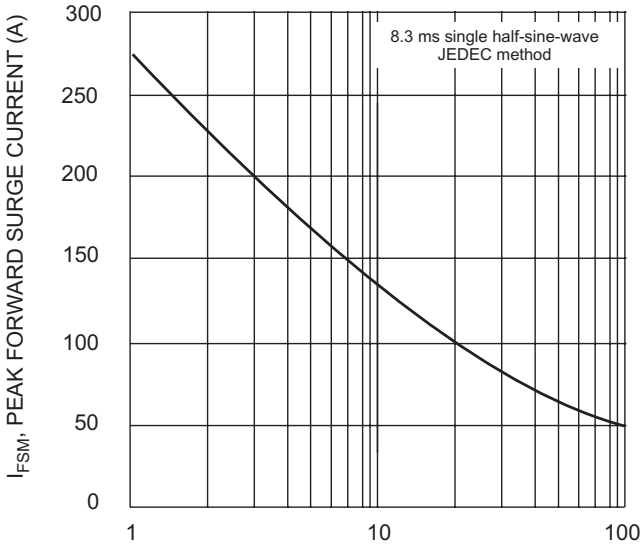


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

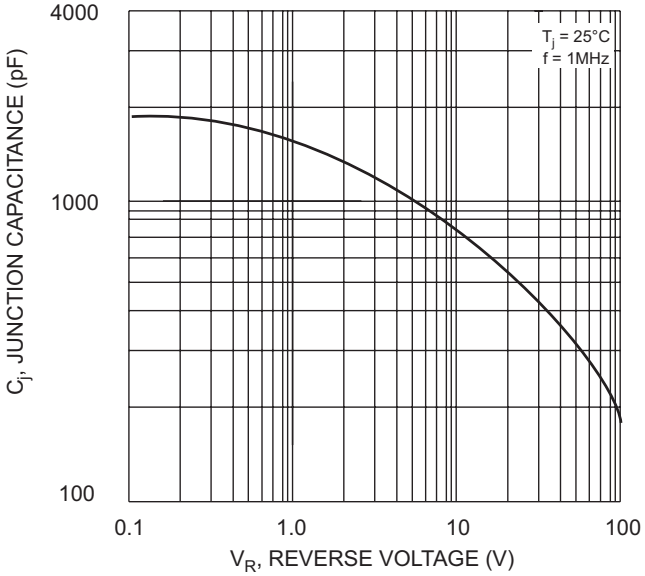


Fig. 4 Typical Junction Capacitance per Element

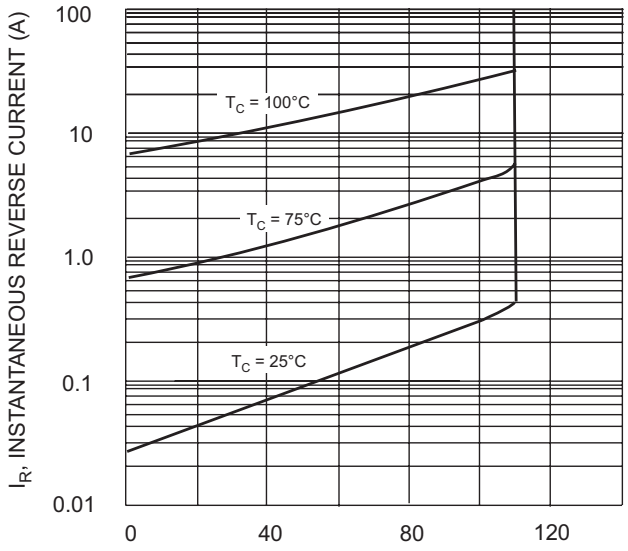


Fig. 5 Typical Reverse Characteristics per Element

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## ORDERING INFORMATION

| Product No. | Package Type | Shipping Quantity |
|---|---|---|
| SB3030PT | TO-3P | 30 Units/Tube |
| SB3035PT | TO-3P | 30 Units/Tube |
| SB3040PT | TO-3P | 30 Units/Tube |
| SB3045PT | TO-3P | 30 Units/Tube |
| SB3050PT | TO-3P | 30 Units/Tube |
| SB3060PT | TO-3P | 30 Units/Tube |

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

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