



**THE DATASHEET OF
SBG3060CT-T**

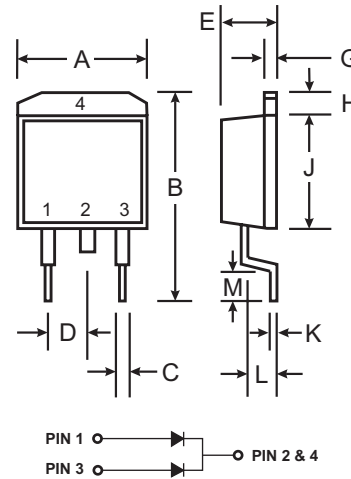


Features

- 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
- Surge Overload Rating to 250A Peak
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications
- **Lead Free Finish/RoHS Compliant Version (Note 3)**

Mechanical Data

- Case: D²PAK
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Finish - Bright Tin. Solderable per MIL-STD-202, Method 208
- Ordering Information, Page 2
- Polarity: See Diagram
- Marking: Type Number
- Mounting Position: Any
- Weight: 1.7 grams (approximate)



| D ² PAK | | |
|--------------------|-------|-------|
| Dim | Min | Max |
| A | 9.65 | 10.69 |
| B | 14.60 | 15.88 |
| C | 0.51 | 1.14 |
| D | 2.29 | 2.79 |
| E | 4.37 | 4.83 |
| G | 1.14 | 1.40 |
| H | 1.14 | 1.40 |
| J | 8.25 | 9.25 |
| K | 0.30 | 0.64 |
| L | 2.03 | 2.92 |
| M | 2.29 | 2.79 |

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 | SBG 3030CT | SBG 3040CT | SBG 3045CT | SBG 3050CT | SBG 3060CT | Unit | |
|---|-----------------------------------|-------------|------------|------------|------------|------------|------|---|
| Peak Repetitive Reverse Voltage | V _{RRM} | 30 | 40 | 45 | 50 | 60 | V | |
| Working Peak Reverse Voltage | V _{RWM} | | | | | | | |
| DC Blocking Voltage | V _R | | | | | | | |
| RMS Reverse Voltage | V _{R(RMS)} | 21 | 28 | 32 | 35 | 42 | V | |
| Average Rectified Output Current @ T _C = 100°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} | 250 | | | | | | A |
| Forward Voltage, per Element @ I _F = 15A, T _C = 25°C | V _{FM} | 0.55 | | | 0.70 | | V | |
| Peak Reverse Current @ T _C = 25°C at Rated DC Blocking Voltage @ T _C = 100°C | I _{RM} | | | | 1.0 75 | | mA | |
| Typical Junction Capacitance (Note 2) | C _j | 420 | | | | | pF | |
| Typical Thermal Resistance Junction to Case (Note 1) | R _{θJC} | 1.5 | | | | | K/W | |
| Operating and Storage Temperature Range | T _j , T _{STG} | -65 to +150 | | | | | °C | |

- Notes: 1. Thermal resistance: junction to case mounted on heat sink.
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.

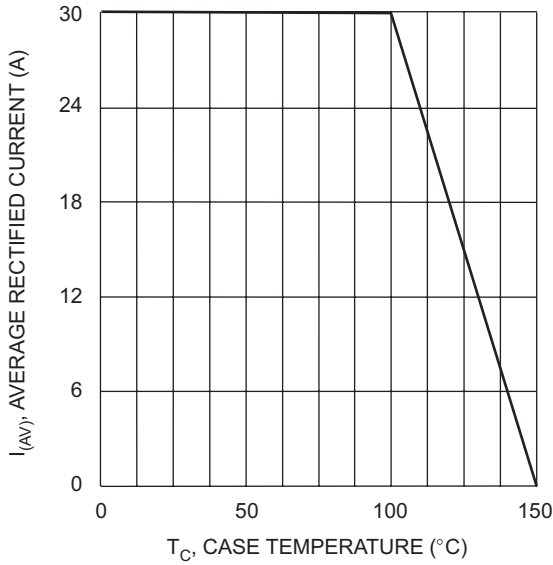


Fig. 1 Forward Derating Curve

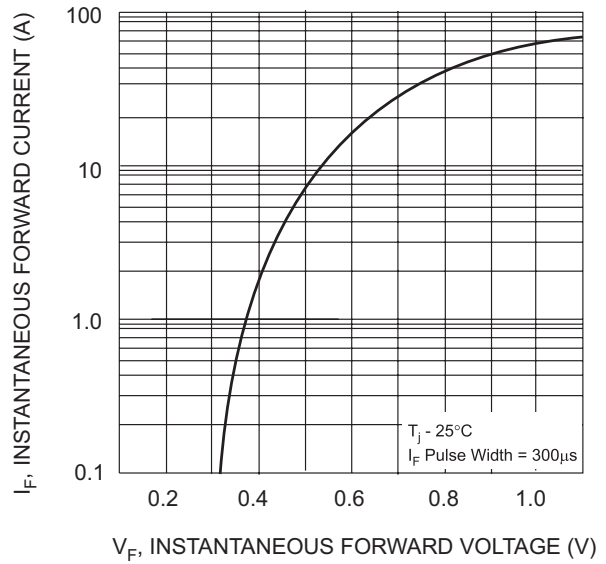


Fig. 2 Typical Forward Characteristics

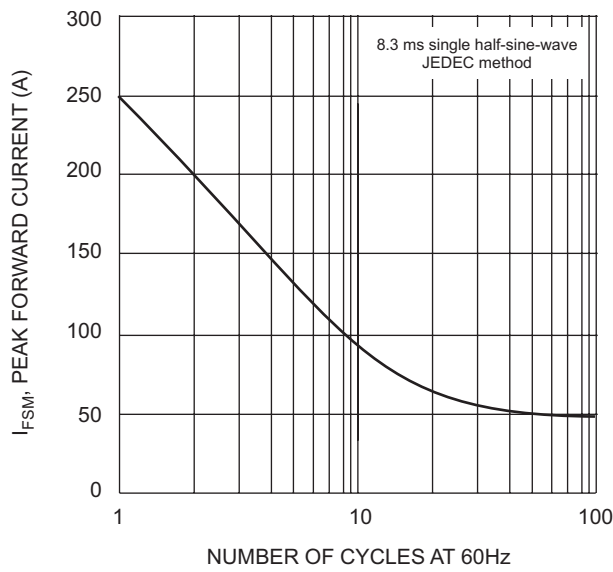


Fig. 3 Maximum Non-Repetitive Surge Current

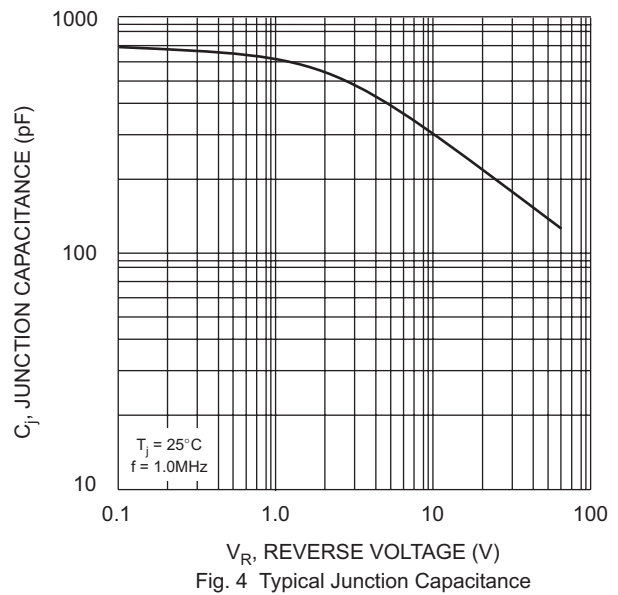


Fig. 4 Typical Junction Capacitance

Ordering Information (Note 4)

| Device | Packaging | Shipping |
|---------------|--------------------|--------------------------|
| SBG3030CT-T-F | D ² PAK | 800/Tape & Reel, 13-inch |
| SBG3040CT-T-F | D ² PAK | 800/Tape & Reel, 13-inch |
| SBG3045CT-T-F | D ² PAK | 800/Tape & Reel, 13-inch |
| SBG3050CT-T-F | D ² PAK | 800/Tape & Reel, 13-inch |
| SBG3060CT-T-F | D ² PAK | 800/Tape & Reel, 13-inch |

Notes: 4. For packaging details, visit our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

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-  Cost Control Management
-  Shortage Management
-  Alternative Solution
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