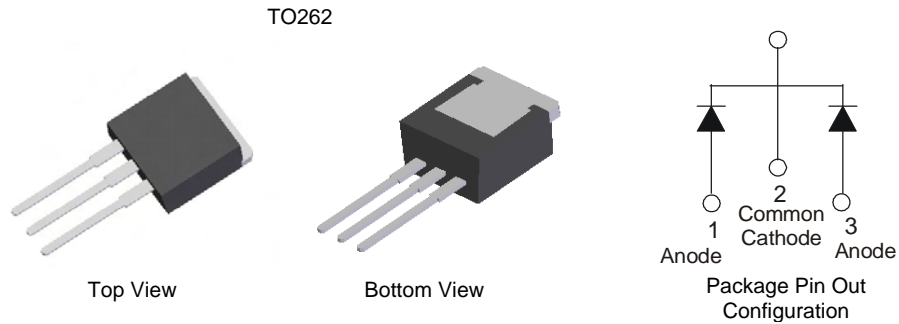


Features

- Low Forward Voltage Drop
- Excellent High Temperature Stability
- Patented Super Barrier Rectifier Technology
- Soft, Fast Switching Capability
- 150°C Operating Junction Temperature
- **Lead Free, RoHS Compliant (Note 1)**

Mechanical Data

- Case: TO262
- Case Material: Molded Plastic, UL Flammability Classification Rating 94V-0
- Terminals: Matte Tin Finish annealed over Copper leadframe. Solderable per MIL-STD-202, Method 208 ⁽³⁾
- Weight: 1.355 grams (approximate)

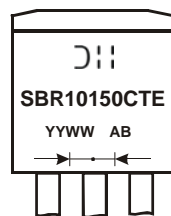


Ordering Information (Note 2)

| Part Number | Case | Packaging |
|-------------|-------|----------------|
| SBR10150CTE | TO262 | 50 pieces/tube |

Notes: 1. EU Directive 2002/95/EC (RoHS). All applicable RoHS exemptions applied, see EU Directive 2002/95/EC Annex Notes.
2. For packaging details, go to our website at <http://www.diodes.com>.

Marking Information



SBR10150CTE = Product Type Marking Code
 AB = Foundry and Assembly Code
 YYWW = Date Code Marking
 YY = Last two digits of year (ex: 08 = 2008)
 WW = Week (01 - 53)

Maximum Ratings @T_A = 25°C unless otherwise specified

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

| Characteristic | Symbol | Value | Unit |
|---|---------------------|-------|------|
| Peak Repetitive Reverse Voltage | V _{RRM} | 150 | V |
| Working Peak Reverse Voltage | V _{RWM} | | |
| DC Blocking Voltage | V _{RM} | | |
| RMS Reverse Voltage | V _{R(RMS)} | 106 | V |
| Average Rectified Output Current | I _O | 10 | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load | I _{FSM} | 100 | A |

Thermal Characteristics @T_A = 25°C unless otherwise specified

| Characteristic | Symbol | Value | Unit |
|--|-----------------------------------|-------------|------|
| Maximum Thermal Resistance (per leg) | R _{θJC} | 2.2 | °C/W |
| Thermal Resistance Junction to case (Note 3) | | | |
| Operating and Storage Temperature Range | T _J , T _{STG} | -55 to +150 | °C |

Electrical Characteristics @T_A = 25°C unless otherwise specified

| Characteristic | Symbol | Min | Typ | Max | Unit | Test Condition |
|------------------------------------|--------------------|-----|------|--------------|----------|---|
| Reverse Breakdown Voltage (Note 4) | V _{(BR)R} | 150 | - | - | V | I _R = 0.25mA |
| Forward Voltage Drop (per leg) | V _F | - | 0.69 | 0.92 0.79 | V | I _F = 5A, T _J = 25°C I _F = 5A, T _J = 125°C |
| Leakage Current (Note 4) | I _R | - | - | 0.25 25 | mA mA | V _R = 150V, T _J = 25°C V _R = 150V, T _J = 125°C |

Notes: 3. Using heatsink (by Black Aluminum, 45mm x 20mm x 12mm)
4. Short duration pulse test used to minimize self-heating effect.

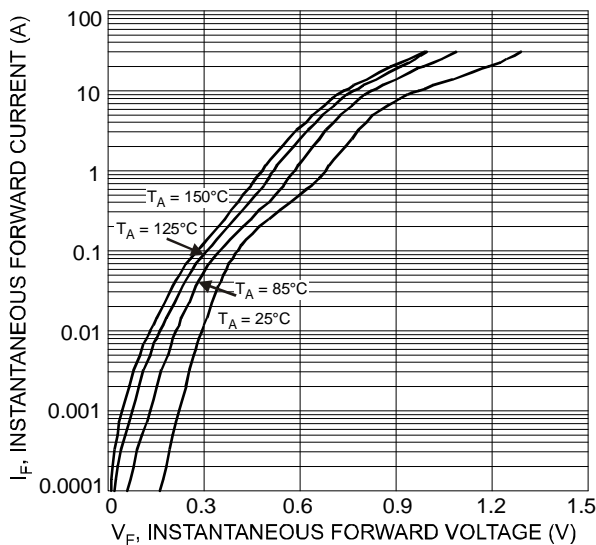


Fig. 1 Typical Forward Characteristics

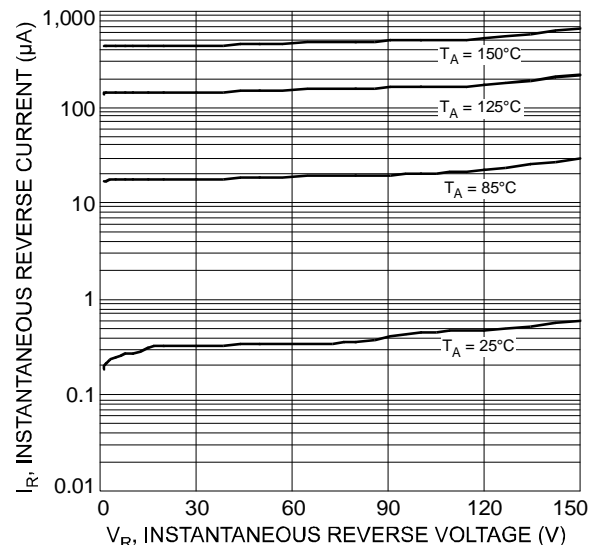
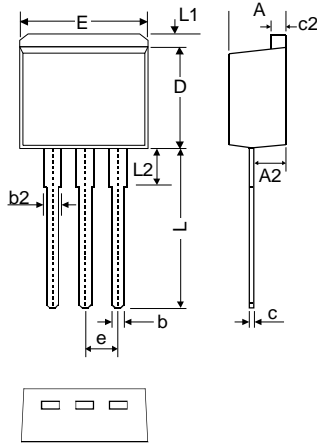


Fig. 2 Typical Reverse Characteristics

Package Outline Dimensions



| T0262 | | | |
|-----------------------------|----------|-------|-------|
| Dim | Min | Max | Typ |
| A | 4.06 | 4.83 | 4.57 |
| A2 | 2.03 | 2.79 | 2.67 |
| b | 0.64 | 0.99 | - |
| b2 | 1.14 | 1.40 | 1.24 |
| c | 0.35 | 0.74 | - |
| c2 | 1.14 | 1.40 | 1.27 |
| D | 8.64 | 9.65 | 8.70 |
| E | 9.65 | 10.29 | 10.11 |
| e | 2.54 Typ | | |
| L | 12.70 | 14.73 | 13.60 |
| L1 | - | 1.67 | - |
| L2 | - | 4.00 | - |
| All Dimensions in mm | | | |

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SBR10150CTE
Document number: DS31497 Rev. 4 - 2

3 of 3
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November 2011
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