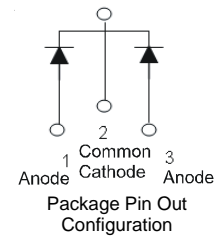
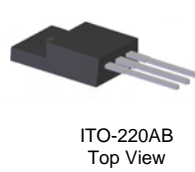


Features

- Low Forward Voltage Drop
- Excellent High Temperature Stability
- Patented Super Barrier Rectifier Technology
- Soft, Fast Switching Capability
- **Lead Free Finish, RoHS Compliant (Note 2)**
- **Also Available in Green Molding Compound (Note 4)**

Mechanical Data

- Case: TO-220AB, ITO-220AB
- 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⁾
- Marking Information: See Page 3
- Ordering Information: See Page 3
- Weight: TO-220AB – 1.85 grams (approximate)
ITO-220AB – 1.65 grams (approximate)



Maximum Ratings (Per Leg) @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} | 100 | V |
| Working Peak Reverse Voltage | V _{RWM} | | |
| DC Blocking Voltage | V _{RM} | | |
| Average Rectified Output Current (Per Leg) | I _O | 15 | A |
| (Total) | | 30 | |
| Non-Repetitive Peak Forward Surge Current 8.3ms | I _{FSM} | 200 | A |
| Single Half Sine-Wave Superimposed on Rated Load | | | |
| Peak Repetitive Reverse Surge Current (2uS-1Khz) | I _{RRM} | 2 | A |
| Isolation Voltage (ITO-220AB Only) | V _{AC} | 2000 | V |
| From terminal to heatsink t = 3 sec. | | | |

Thermal Characteristics (Per Leg)

| Characteristic | Symbol | Value | Unit |
|---|-----------------------------------|-------------|------|
| Typical Thermal Resistance | R _{θJC} | 2 | °C/W |
| Package = TO-220AB | | 4 | |
| Package = ITO-220AB | | | |
| Operating and Storage Temperature Range | T _J , T _{STG} | -65 to +175 | °C |

Electrical Characteristics (Per Leg) @T_A = 25°C unless otherwise specified

| Characteristic | Symbol | Min | Typ | Max | Unit | Test Condition |
|--------------------------|----------------|-----|-----------|--------------|------|---|
| Forward Voltage Drop | V _F | - | - 0.72 | 0.85 0.75 | V | I _F = 15A, T _J = 25°C I _F = 15A, T _J = 125°C |
| Leakage Current (Note 1) | I _R | - | - | 0.1 10 | mA | V _R = 100V, T _J = 25°C V _R = 100V, T _J = 125°C |

- Notes:
1. Short duration pulse test used to minimize self-heating effect.
 2. EU Directive 2002/95/EC (RoHS). All applicable RoHS exemptions applied. Please visit our website at http://www.diodes.com/products/lead_free.html.
 3. Using heatsink (by black Aluminum 45mm * 20mm * 12mm)

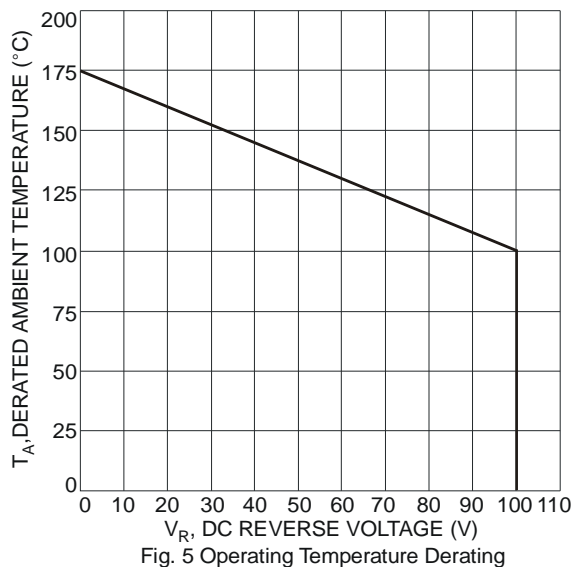
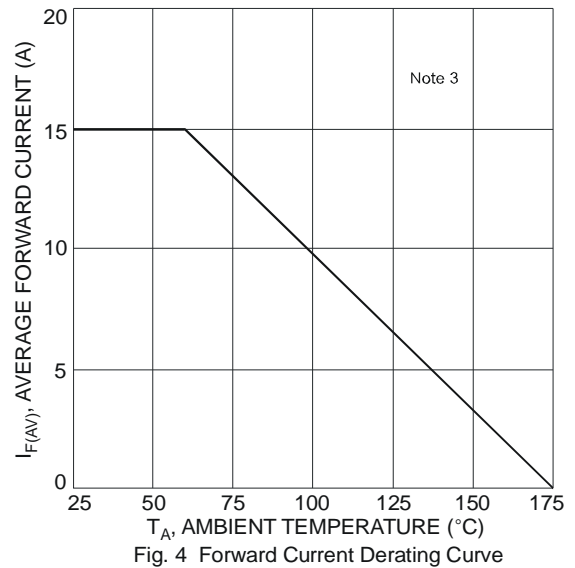
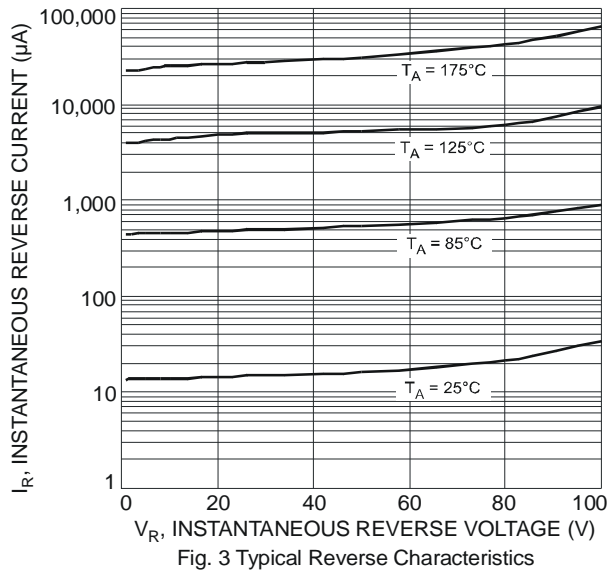
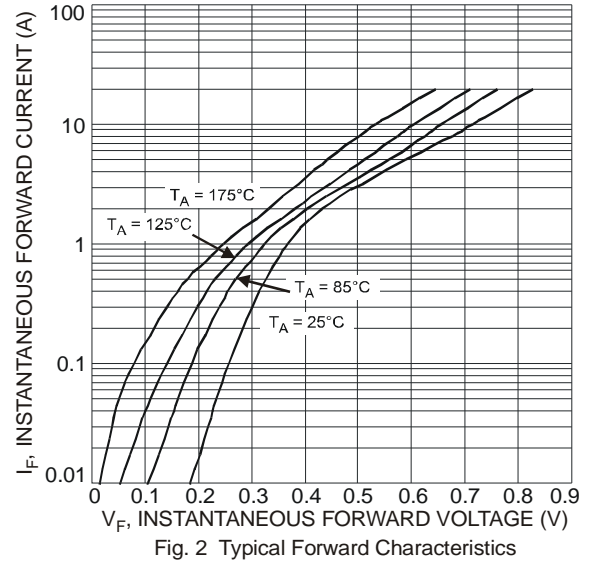
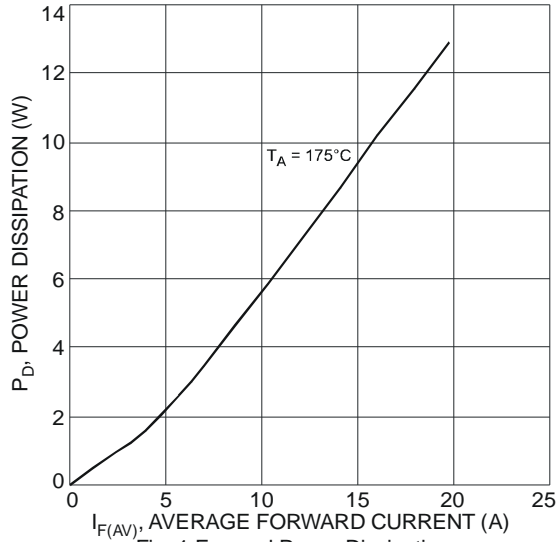
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SBR30100

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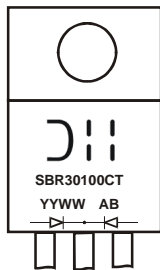


Ordering Information (Notes 4 & 5)

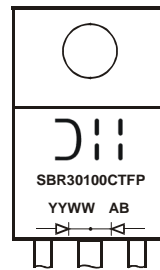
| Part Number | Case | Packaging |
|----------------|-----------|----------------|
| SBR30100CT | TO-220AB | 50 pieces/tube |
| SBR30100CT-G | TO-220AB | 50 pieces/tube |
| SBR30100CTFP | ITO-220AB | 50 pieces/tube |
| SBR30100CTFP-G | ITO-220AB | 50 pieces/tube |

Notes: 4. For packaging details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.
5. For Green Molding Compound version part numbers, add "-G" suffix to part number above. Examples: SBR30100CT-G.

Marking Information

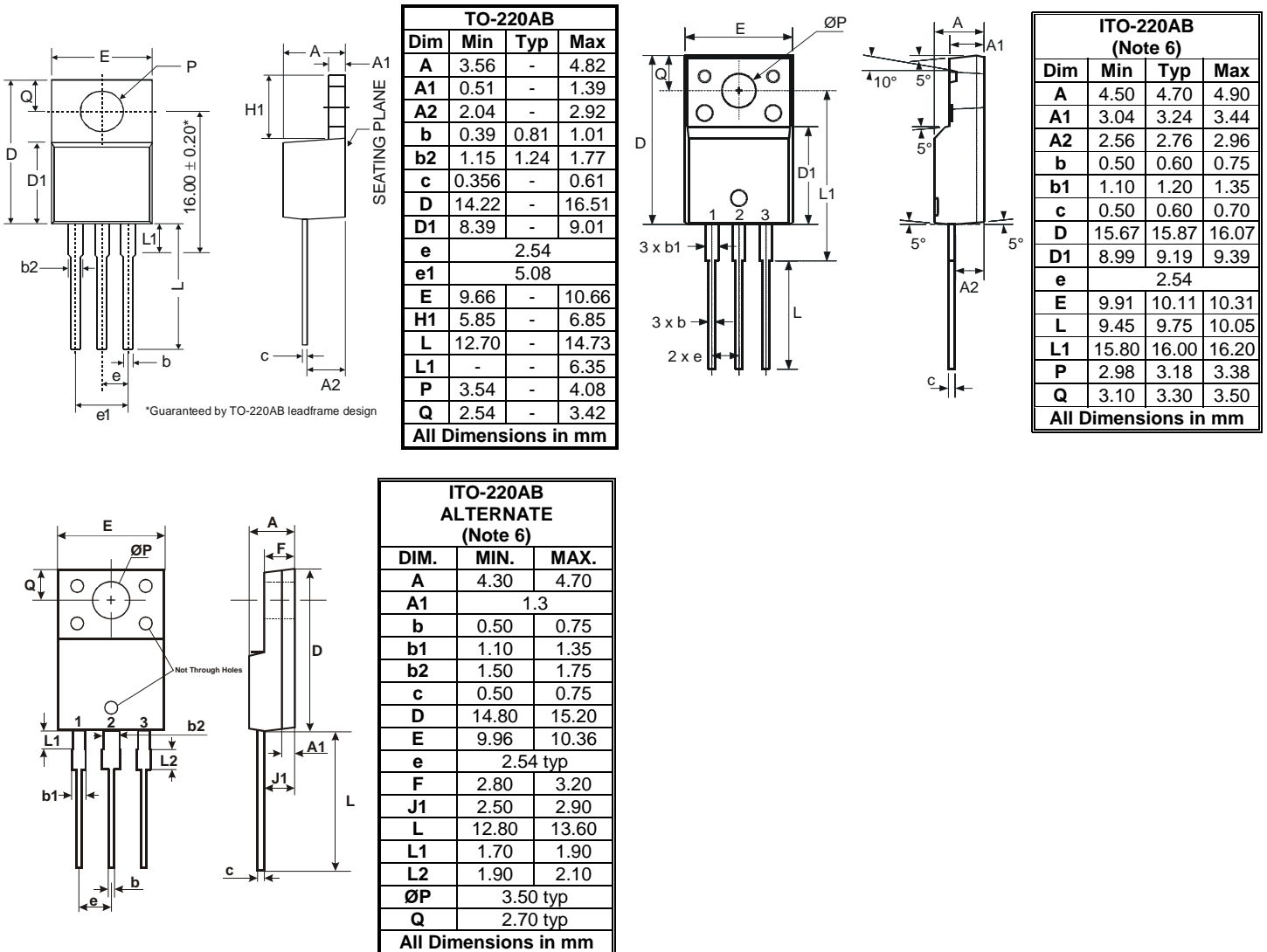


SBR30100CT = Product Type Marking Code
AB = Foundry and Assembly Code
YYWW = Date Code Marking
YY = Last two digits of year (ex: 06 = 2006)
WW = Week (01-52)



SBR30100CTFP = Product Type Marking Code
AB = Foundry and Assembly Code
YYWW = Date Code Marking
YY = Last two digits of year (ex: 06 = 2006)
WW = Week (01-52)

Package Outline Dimensions



Notes: 6. For product manufactured with Date Code 0733 (week 33, 2007) and newer, please refer to ITO-220AB dimensions. For product manufactured prior to Date Code 0733, please refer to ITO-220AB ALTERNATE dimensions.

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