

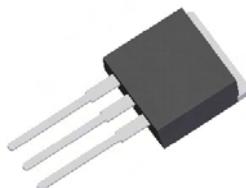
Features

- 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)**

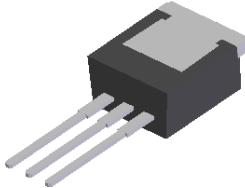
Mechanical Data

- 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 
- Weight: 1.355 grams (approximate)

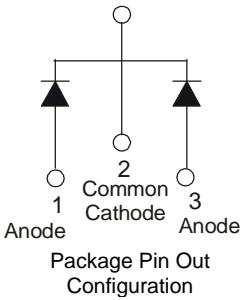
TO262



Top View



Bottom View



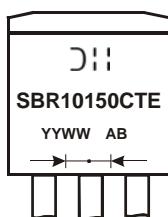
Package Pin Out Configuration

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 @ $T_A = 25^\circ\text{C}$ 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}		
Working Peak Reverse Voltage	V_{RWM}	150	V
DC Blocking Voltage	V_{RM}		
RMS Reverse Voltage	$V_{R(\text{RMS})}$	106	V
Average Rectified Output Current	I_O	10	A
Non-Repetitive Peak Forward Surge Current 8.3ms	I_{FSM}	100	A
Single Half Sine-Wave Superimposed on Rated Load			

Thermal Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Unit
Maximum Thermal Resistance (per leg)	$R_{\theta JC}$	2.2	$^\circ\text{C}/\text{W}$
Thermal Resistance Junction to case (Note 3)			
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$

Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 4)	$V_{(BR)R}$	150	-	-	V	$I_F = 0.25\text{mA}$
Forward Voltage Drop (per leg)	V_F	-	0.69	0.92 0.79	V	$I_F = 5\text{A}, T_J = 25^\circ\text{C}$ $I_F = 5\text{A}, T_J = 125^\circ\text{C}$
Leakage Current (Note 4)	I_R	-	-	0.25 25	mA	$V_R = 150\text{V}, T_J = 25^\circ\text{C}$ $V_R = 150\text{V}, T_J = 125^\circ\text{C}$

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

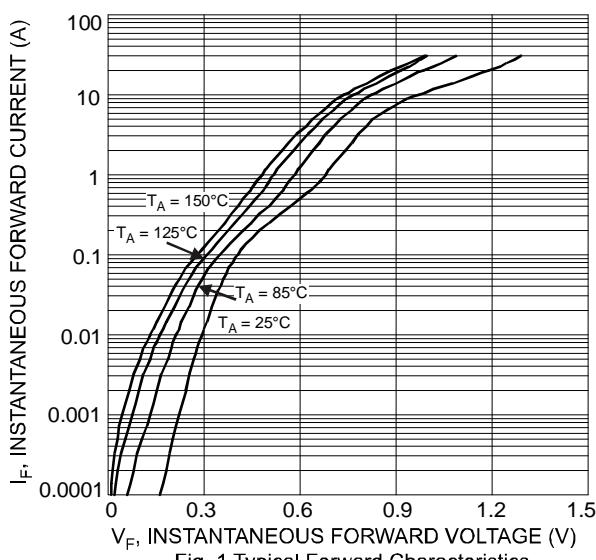


Fig. 1 Typical Forward Characteristics

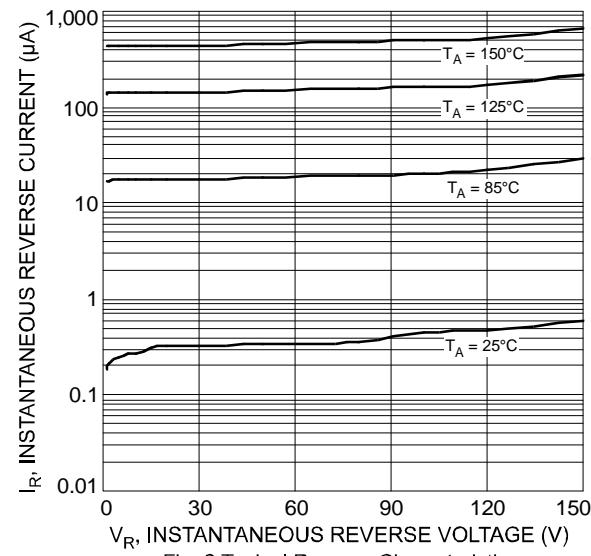


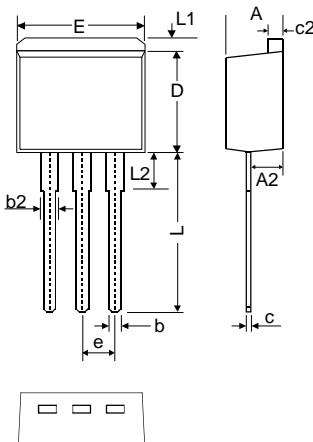
Fig. 2 Typical Reverse Characteristics

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SBR10150CTE

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Package Outline Dimensions



TO262			
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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