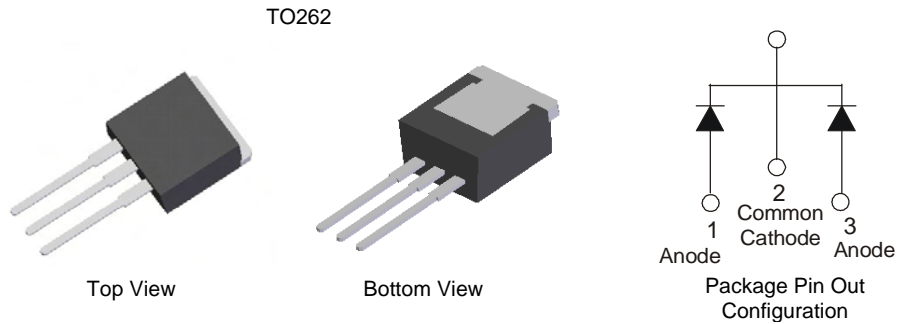


## Features

- Low Forward Voltage Drop
- Excellent High Temperature Stability
- Patented Super Barrier Rectifier Technology
- Soft, Fast Switching Capability
- **Lead Free Finish, RoHS Compliant (Note 1)**
- **Also Available in Green Molding Compound (Note 2)**

## 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 <sup>Ⓔ3</sup>
- Weight: 1.355 grams (approximate)

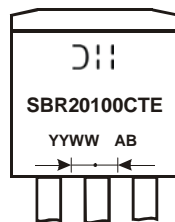


## Ordering Information (Notes 2 & 3)

Part Number	Case	Packaging
SBR20100CTE	TO262	50 pieces/tube
SBR20100CTE-G	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 Green Molding Compound version part numbers, add "-G" suffix to part number above. Examples: SBR20100CTE-G.
  3. For packaging details, go to our website at <http://www.diodes.com>.

## Marking Information



SBR20100CTE = 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 (Per Leg) @T<sub>A</sub> = 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 <sub>RRM</sub>	100	V
Working Peak Reverse Voltage	V <sub>RWM</sub>		
DC Blocking Voltage	V <sub>RM</sub>		
RMS Reverse Voltage	V <sub>R(RMS)</sub>	71	V
Average Rectified Output Current Per Device	I <sub>O</sub>	10	A
(Per Leg)		20	
(Total)			
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I <sub>FSM</sub>	180	A

**Thermal Characteristics (Per Leg)**

Characteristic	Symbol	Value	Unit
Maximum Thermal Resistance, Junction to Case	R <sub>θJC</sub>	2	°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +175	°C

**Electrical Characteristics (Per Leg) @T<sub>A</sub> = 25°C unless otherwise specified**

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage Drop	V <sub>F</sub>	-	- 0.67	0.82 0.71	V	I <sub>F</sub> = 10A, T <sub>J</sub> = 25°C I <sub>F</sub> = 10A, T <sub>J</sub> = 125°C
Leakage Current (Note 4)	I <sub>R</sub>	-	-	0.1 20	mA	V <sub>R</sub> = 100V, T <sub>J</sub> = 25°C V <sub>R</sub> = 100V, T <sub>J</sub> = 125°C

Notes: 4. Short duration pulse test used to minimize self-heating effect.

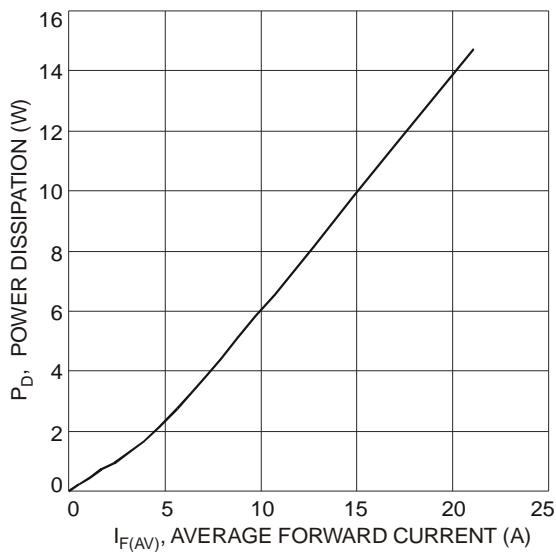


Fig. 1 Forward Power Dissipation

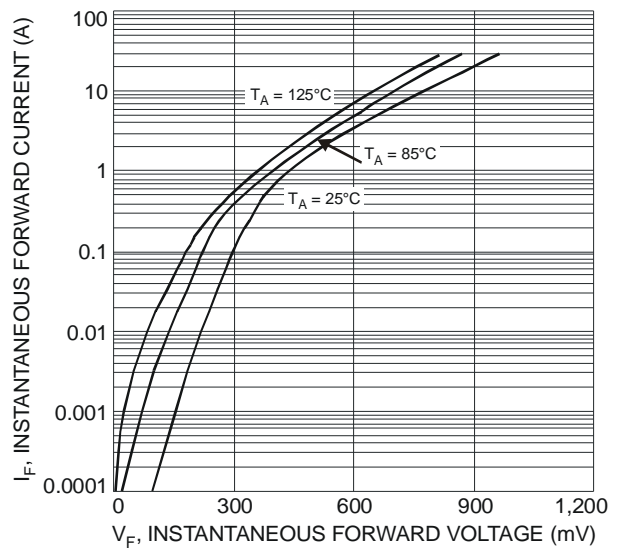


Fig. 2 Typical Forward Characteristics

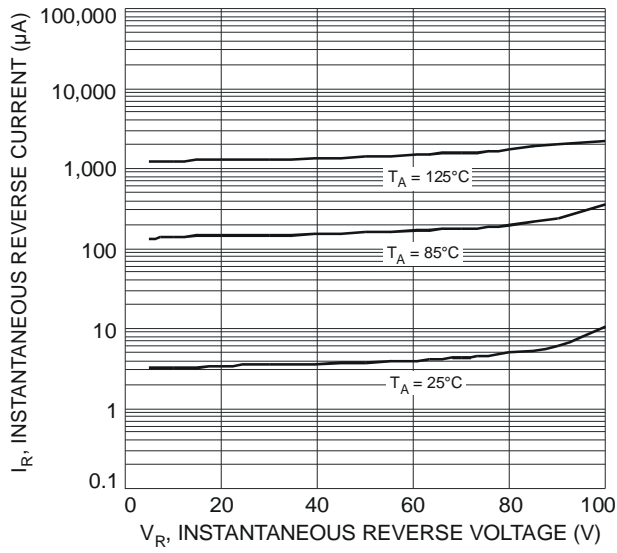


Fig. 3 Typical Reverse Characteristics

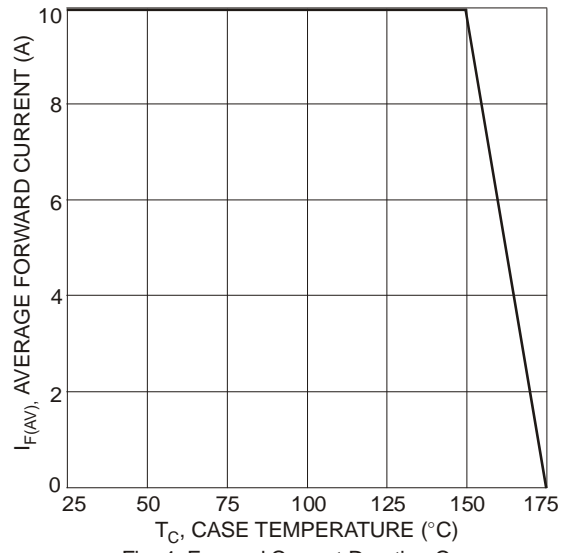
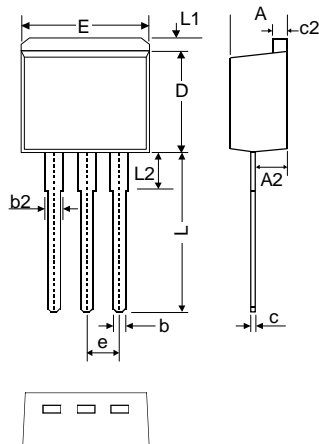


Fig. 4 Forward Current Derating Curve

**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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