

10A SBR[®] SUPER BARRIER RECTIFIER

Features

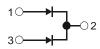
- Low Forward Voltage Drop
- Excellent High Temperature Stability
- Patented Super Barrier Rectifier Technology
- Soft, Fast Switching Capability
- Lead Free Finish, RoHS Compliant (Note 1)
- "Green" Molding Compound (No Br, Sb)

Mechanical Data

- Case: TO252
- Case Material: Molded Plastic, UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Matte Tin Finish annealed over Copper leadframe.
 Solderable per MIL-STD-202, Method 208 63
- Weight: 0.37 grams (approximate)



Top View



Package Pin-Out Configuration

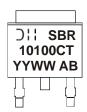
Ordering Information (Note 2)

Part Number	Case	Packaging
SBR10100CTL-13	TO252	2500 pieces/reel

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



SBR10100CT = Product Type Marking Code AB = Foundry and Assembly Code YYWW = Date Code Marking YY = Last two digits of year (ex: 09 = 2009) WW = Week (01 - 53)



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 Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _{RM}	100	V
RMS Reverse Voltage	V _{R(RMS)}	71	V
Average Rectified Output Current Per Device	Io	10	Α
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	110	А

Thermal Characteristics (Per Leg)

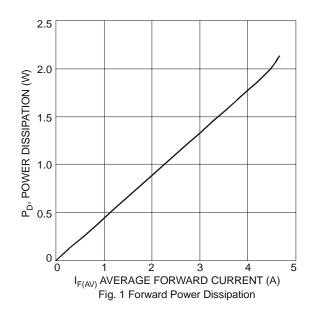
Characteristic	Symbol	Value	Unit
Typical Thermal Resistance (Note 4)	$R_{ heta JC}$	22	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +175	°C

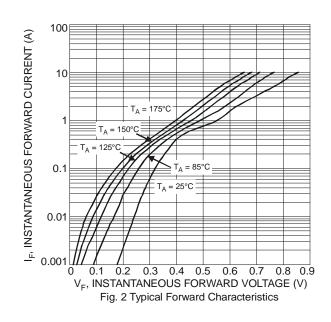
Electrical Characteristics (Per Leg) @TA = 25°C unless otherwise specified

Characteristic	Symbol	Min	Тур	Max	Unit	Test Condition
orward Voltage Drop	V _F	-	0.77	0.84	\/	I _F = 5A, T _J = 25°C
		-	0.63	0.71		$I_F = 5A$, $T_J = 125$ °C
eakage Current (Note 3)	I _R	-	-	0.2	ma I	$V_R = 100V, T_J = 25^{\circ}C$
		-	-	25		$V_R = 100V, T_J = 125^{\circ}C$

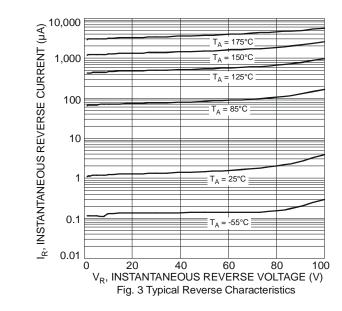
Notes:

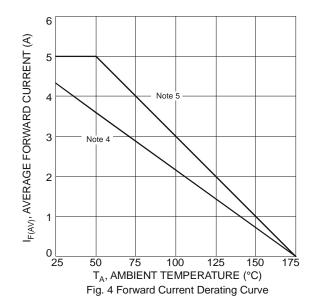
- 3. Short duration pulse test used to minimize self-heating effect
- Device mounted on FR-4 substrate PC board, 1oz copper .with minimum recommended pad layout.
 Device mounted on Polymide substate, 1*MRP, 2oz, copper, PC boards.



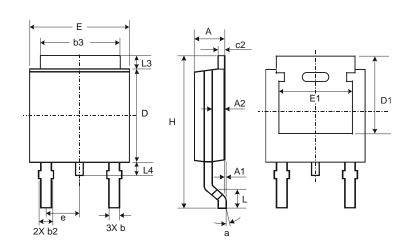






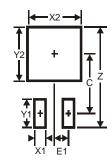


Package Outline Dimensions



	TO252					
Dim	Min	Max	Тур			
Α	2.19	2.39	2.29			
A1	0.00	0.13	0.08			
A2	0.97	1.17	1.07			
b	0.64	0.88	0.783			
b2	0.76	1.14	0.95			
b3	5.21	5.46	5.33			
c2	0.45	0.58	0.531			
D	6.00	6.20	6.10			
D1	5.21	_	_			
е	_	_	2.286			
Е	6.45	6.70	6.58			
E1	4.32	_	_			
Н	9.40	10.41	9.91			
L	1.40	1.78	1.59			
L3	0.88	1.27	1.08			
L4	0.64	1.02	0.83			
а	0°	10°	_			
All	All Dimensions in mm					

Suggested Pad Layout



Dimensions	Value (in mm)
Z	11.6
X1	1.5
X2	7.0
Y1	2.5
Y2	7.0
С	6.9
E1	2.3



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