

查询SBR10U300CT\_08供应商

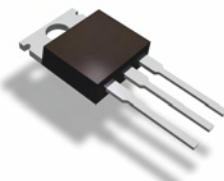


捷多邦，专业PCB打样工厂，24小时加急出货

**SBR10U300CT**  
**SBR10U300CTFP**
**10A SBR®**  
**SUPER BARRIER RECTIFIER**

## Features

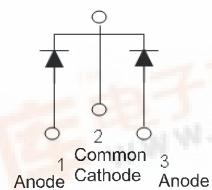
- Ultra Low Forward Voltage Drop
- Excellent High Temperature Stability
- Patented Super Barrier Rectifier Technology
- Soft, Fast Switching Capability
- Lead Free Finish, RoHS Compliant (Note 2)**



TO-220AB



ITO-220AB



Package Pin Out Configuration

## Mechanical Data

- Case: TO-220AB and ITO-220AB
- Case Material: Molded Plastic, UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020D
- Terminals: Matte Tin Finish annealed over Copper leadframe. Solderable per MIL-STD-202, Method 208 (E3)
- Marking Information: See Page 2
- Ordering Information: See Page 2
- Weight: TO-220AB - 2.1 grams (approximate)  
ITO-220AB - 1.9 grams (approximate)

## 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	$V_{RWM}$	300	V
DC Blocking Voltage	$V_{RM}$		
RMS Reverse Voltage	$V_{R(RMS)}$	212	V
Average Rectified Output Current @ $T_C = 150^\circ\text{C}$	$I_O$	10	A
Non-Repetitive Peak Forward Surge Current 8.3ms	$I_{FSM}$	150	A
Single Half Sine-Wave Superimposed on Rated Load			
Peak Repetitive Reverse Surge Current (2uS-1Khz)	$I_{RRM}$	3	A

## Thermal Characteristics

Characteristic	Symbol	Value	Unit
Maximum Thermal Resistance (per leg)			
Package = TO-220AB	$R_{\theta JC}$	2	°C/W
Package = ITO-220AB		4	
Operating and Storage Temperature Range	$T_J, T_{STG}$	-65 to +175	°C

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

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 1)	$V_{(BR)R}$	300	-	-	V	$I_R = 0.2\text{mA}$
Forward Voltage Drop	$V_F$	-	0.64	0.86 0.71 0.92	V	$I_F = 5\text{A}, T_J = 25^\circ\text{C}$ $I_F = 5\text{A}, T_J = 125^\circ\text{C}$ $I_F = 10\text{A}, T_J = 25^\circ\text{C}$
Leakage Current (Note 1)	$I_R$	-	-	0.2 25	mA	$V_R = 300\text{V}, T_J = 25^\circ\text{C}$ $V_R = 300\text{V}, T_J = 125^\circ\text{C}$
Reverse Recovery Time	$t_{rr}$	-	25	30	ns	$I_F = 0.5\text{A}, I_R = 1\text{A}, I_{RR} = 0.25\text{A}$ $I_F = 1\text{A}, V_R = 30\text{V}$ $di/dt = 100\text{A}/\mu\text{s}, T_J = 25^\circ\text{C}$
		-	28	35		

Notes: 1. Short duration pulse test used to minimize self-heating effect.

2. RoHS revision 13.2.2003. High temperature solder exemption applied, see EU Directive Annex Note 7.



**SBR10U300CT**  
**SBR10U300CTFP**

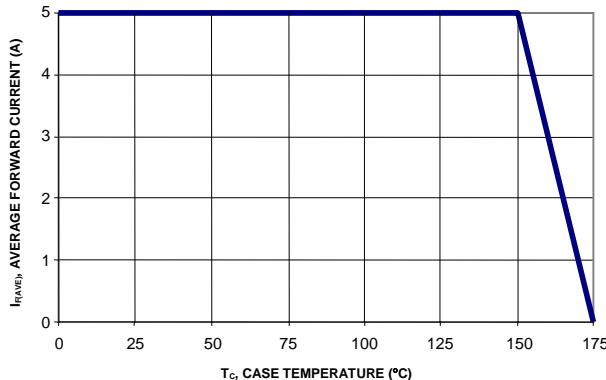


Figure 1: Current Derating Curve, Per Element

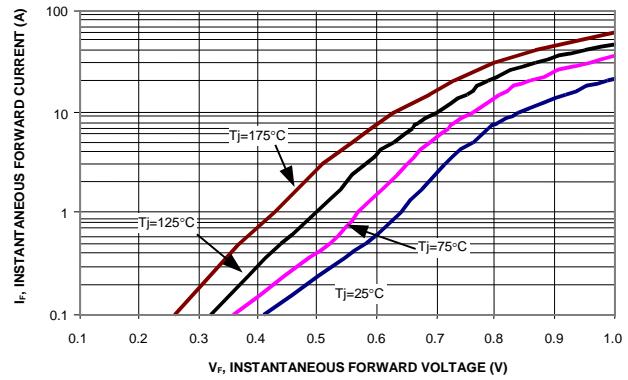


Figure 2: Typical Forward Characteristics, Per Element

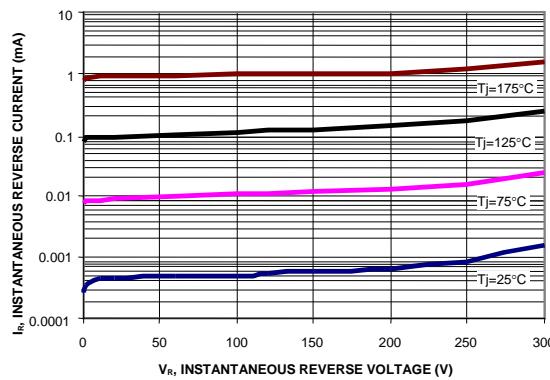


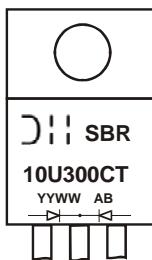
Figure 3: Typical Reverse Characteristics, Per Element

## Ordering Information (Note 3)

Part Number	Case	Packaging
SBR10U300CT	TO-220AB	50 pieces/tube
SBR10U300CTFP	ITO-220AB	50 pieces/tube

Notes: 3. For packaging details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

## Marking Information

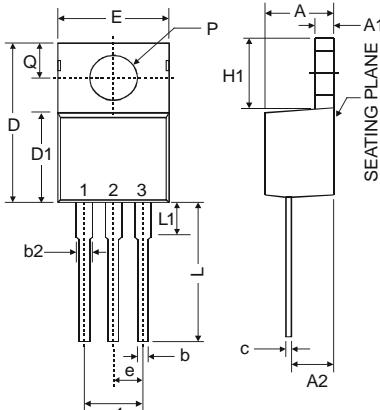


SBR10U300CT = Product Type Marking Code  
AB = Foundry and Assembly Code  
YYWW = Date Code Marking  
YY = Last two digits of year, ex:06 = 2006  
WW = Week (01-52)



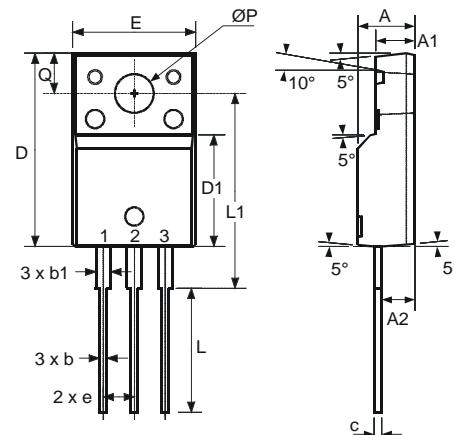
SBR10U300CTFP = Product Type Marking Code  
AB = Foundry and Assembly Code  
YYWW = Date Code Marking  
YY = Last two digits of year, ex: 06 = 2006  
WW = Week (01-52)

## Package Outline Dimensions



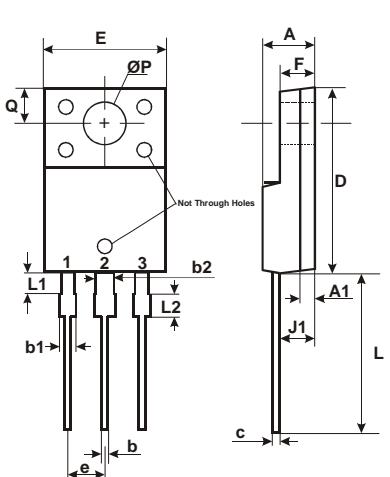
TO-220AB			
Dim	Min	Typ	Max
<b>A</b>	3.56	-	4.82
<b>A1</b>	0.51	-	1.39
<b>A2</b>	2.04	-	2.92
<b>b</b>	0.39	0.81	1.01
<b>c</b>	0.356	-	0.61
<b>D</b>	14.22	-	16.51
<b>D1</b>	8.39	-	9.01
<b>e</b>	2.54		
<b>e1</b>	5.08		
<b>E</b>	9.66	-	10.66
<b>H1</b>	5.85	-	6.85
<b>L</b>	12.70	-	14.73
<b>L1</b>	-	-	6.35
<b>P</b>	3.54	-	4.08
<b>Q</b>	2.54	-	3.42

All Dimensions in mm



ITO-220AB (Note 4)			
Dim	Min	Typ	Max
<b>A</b>	4.50	4.70	4.90
<b>A1</b>	3.04	3.24	3.44
<b>A2</b>	2.56	2.76	2.96
<b>b</b>	0.50	0.60	0.75
<b>b1</b>	1.10	1.20	1.35
<b>c</b>	0.50	0.60	0.70
<b>D</b>	15.67	15.87	16.07
<b>D1</b>	8.99	9.19	9.39
<b>e</b>	2.54		
<b>E</b>	9.91	10.11	10.31
<b>L</b>	9.45	9.75	10.05
<b>L1</b>	15.80	16.00	16.20
<b>P</b>	2.98	3.18	3.38
<b>Q</b>	3.10	3.30	3.50

All Dimensions in mm



ITO-220AB ALTERNATE (Note 4)		
DIM.	MIN.	MAX.
<b>A</b>	4.30	4.70
<b>A1</b>	1.3	
<b>b</b>	0.50	0.75
<b>b1</b>	1.10	1.35
<b>b2</b>	1.50	1.75
<b>c</b>	0.50	0.75
<b>D</b>	14.80	15.20
<b>E</b>	9.96	10.36
<b>e</b>	2.54 typ	
<b>F</b>	2.80	3.20
<b>J1</b>	2.50	2.90
<b>L</b>	12.80	13.60
<b>L1</b>	1.70	1.90
<b>L2</b>	1.90	2.10
<b>ØP</b>	3.50 typ	
<b>Q</b>	2.70 typ	

All Dimensions in mm

Notes: 4. 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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