

SBR20A45CT SBR20A45CTFP

20A SBR[®] Super Barrier Rectifier

Features

- Low Forward Voltage Drop
- Excellent High Temperature Stability
- Super Barrier Design
- Soft, Fast Switching Capability
- Molded Plastic TO-220AB, and ITO-220AB packages
- Lead Free Finish, RoHS Compliant (Note 2)

Mechanical Data

- Case Material: Molded Plastic, UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Matte Tin Finish annealed over Copper leadframe. Solderable per MIL-STD-202, Method 208 (3)
- Marking: See Page 3
- Ordering Information: See Page 3

Maximum Ratings @ T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V _{RRM}		
Working Peak Reverse Voltage	V _{RWM}	45	V
DC Blocking Voltage	V _{RM}		
RMS Reverse Voltage	V _{R(RMS)}	32	V
Average Rectified Output Current @ T _c = 110°C	Io	20	A
Non-Repetitive Peak Forward Surge Current 8.3ms	leave	180	А
Single Half Sine-Wave Superimposed on Rated Load	IFSM	100	~
Peak Repetitive Reverse Surge Current (2uS-1Khz)	I _{RRM}	3	A
Maximum Thermal Resistance (per leg)			
Package = TO-220AB	R _{eJC}	2	°C/W
Package = ITO-220AB		4	
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Тур	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 1)	V _{(BR)R}	45	-	-	V	I _R = 0.5 mA
Forward Voltage Drop	V _F	-	- 0.41 -	0.50 0.47 0.60	V	I _F = 10A, T _J = 25°C I _F = 10A, T _J = 125°C I _F = 20A, T _J = 25°C
Leakage Current (Note 1)	I _R	-	-	0.5 100	mA	V _R = 45V, T _J = 25 °C V _R = 45V, T _J = 125 °C

Notes:

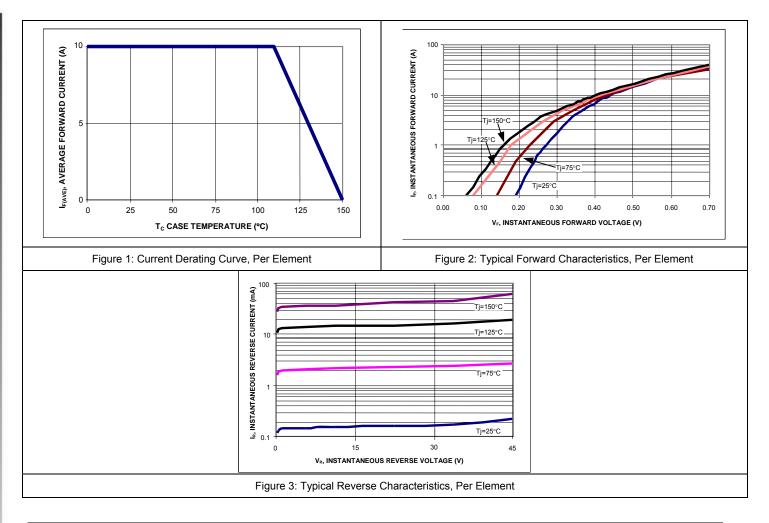
1. Short duration pulse test used to minimize self-heating effect.

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

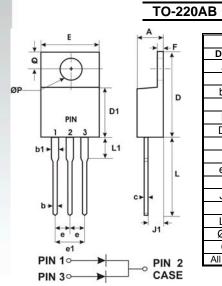
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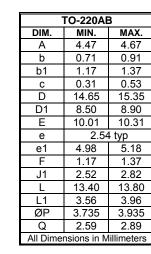


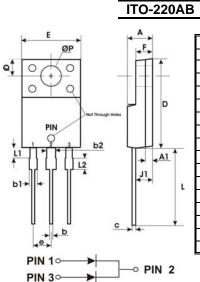
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Package Outline Drawings







ITO-220AB			
DIM.	MIN.	MAX.	
А	4.30	4.70	
b	0.50	0.75	
b1	1.10	1.35	
b2	1.50	1.75	
С	0.50	0.75	
D	14.80	15.20	
Е	9.96	10.36	
е	2.54	4 typ	
F	2.80	3.20	
J1	2.50	2.90	
L	12.80	13.60	
L1	1.70	1.90	
ØP	3.50 typ		
Q	2.70 typ		
All Dimensions in Millimeters			



Marking, Polarity, Weight & Ordering Information

	SBR20A45CT	SBR20A45CTFP	
Case Style			
	TO-220AB	ITO-220AB	
Polarity	Case	Anode	
Marking)¦¦ sbr 20A45CT YYWW AB	D¦¦ sbr 20A45CTFP YWW A8 >⊨ ⊨	
Weight	2.1g	1.9g	

Ordering	SBR20A45CT	SBR20A45CTFP	
Information	50 pieces/tube	50 pieces/tube	
Date Code	YY = Last two digits of year, ex = 06 = 2006 WW = Week (01-52)		
Other Marking	A = Foundry Code		
Information	B = Assembly Code		

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