



30A 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 (Notes 1 & 2)
- Also Available in Green Molding Compound
 - Halogen and Antimony Free. "Green" Device (Note 3)

Mechanical Data

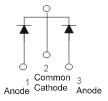
- Case: TO-220AB
- Case Material: Molded Plastic, UL Flammability Classification Rating 94V-0
- Terminals: Matte Tin Finish annealed over Copper leadframe.
 Solderable per MIL-STD-202, Method 208 63
- Weight:1.85 grams (approximate)



Top View



TO-220AB Bottom View



Package Pin Out Configuration

Ordering Information (Notes 4 & 5)

	Part Number	Case	Packaging	
Pv ₂	SBR30120CT	TO-220AB	50 pieces/tube	
Pb,	SBR30120CT-G	TO-220AB	50 pieces/tube	

Notes:

- 1. EU Directive 2002/95/EC (RoHS) & 2011/65/EU (RoHS 2) compliant. All applicable RoHS exemptions applied.
- 2. See http://www.diodes.com for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
- 3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
- 4. For Green Molding Compound version part numbers, add "-G" suffix to part number above. Examples: SBR30120CT-G.
- 5. For packaging details, go to our website at http://www.diodes.com.

Marking Information



SBR30120CT = 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) @TA = 25°C unless otherwise specified

Single phase, half wave, 60 Hz, 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}	120	V
Average Rectified Output Current	Total Per Leg	Io	30 15	Α
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load		I _{FSM}	180	А

Thermal Characteristics (Per Leg)

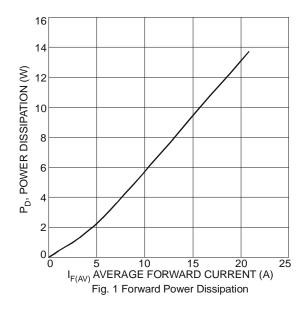
Characteristic	Symbol	Value	Unit
Maximum Thermal Resistance (per leg)	$R_{\theta JC}$	3	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +175	°C

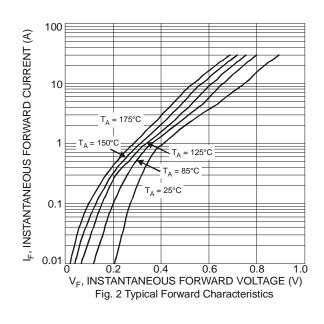
Electrical Characteristics (Per Leg) @TA = 25°C unless otherwise specified

Characteristic	Symbol	Min	Тур	Max	Unit	Test Condition
Forward Voltage Drop (per leg)	V _F	-	0.73	0.89 0.80	l V	I _F = 15A, T _J = 25°C I _F = 15A, T _J = 125°C
Leakage Current (Note 6)	I _R	-	-	0.5 100	mA	V _R = 120V, T _J = 25°C V _R = 120V, T _J = 125°C

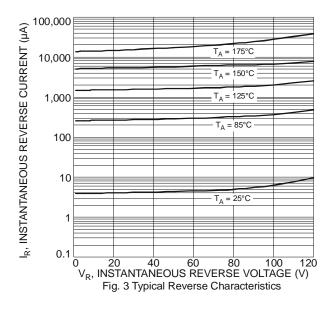
Notes:

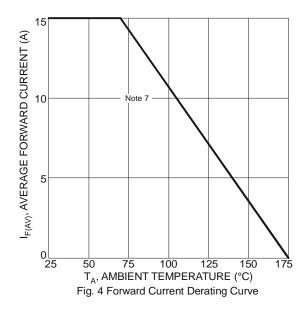
- 6. Short duration pulse test used to minimize self-heating effect.
- 7. Using heatsink (by Black Aluminum, 37mm*50mm*15mm)



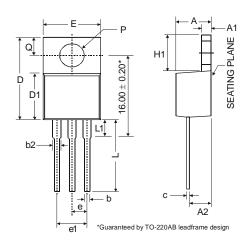








Package Outline Dimensions



	TO-220AB					
Dim	Min Typ		Max			
Α	3.56	-	4.82			
A1	0.51	1	1.39			
A2	2.04	1	2.92			
b	0.39	0.81	1.01			
b2	1.15	1.24	1.77			
С	0.356	1	0.61			
D	14.22	1	16.51			
D1	8.39	1	9.01			
е	2.54 5.08					
e1						
Е	9.66	10.66				
H1	5.85	ı	6.85			
L	L 12.70		14.73			
L1	-	-	6.35			
Р	3.54	-	4.08			
Q	2.54	-	3.42			
All [All Dimensions in mm					



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