

60A SBR SUPER BARRIER RECTIFIER

Features

- Low Forward Voltage Drop
- Patented Superior Barrier Rectifier SBR[®] Technology
- Excellent High Temperature Stability
- Patented Super Barrier Rectifier Technology
- Soft, Fast Switching Capability
- +175°C Operating Junction Temperature
- TO220AB
 - Lead-Free Finish; RoHS Compliant (Notes 1 & 2)
- Available in "Green" Packages: TO220AB
 - Lead-Free Finish; RoHS Compliant (Notes 1 & 2)
 - Halogen and Antimony Free. "Green" Device (Note 3)
- Also Available in Green Molding Compound (Note 4)

Mechanical Data

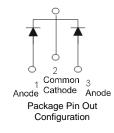
- Case: TO220AB
- Case Material: Molded Plastic, UL Flammability Classification Rating 94V-0
- Terminals: Matte Tin Finish Annealed over Copper Leadframe. Solderable per MIL-STD-202, Method 208 (3)
- Weight: 1.85 grams (Approximate)



TO220AB Top View



TO220AB Bottom View



Ordering Information (Note 5)

-	Part Number	Case	Packaging		
Ì	SBR60A150CT	TO220AB	50 Pieces/Tube		
	SBR60A150CT-G (Note 4)	TO220AB	50 Pieces/Tube		

1. EU Directive 2002/95/EC (RoHS) & 2011/65/EU (RoHS 2) compliant. All applicable RoHS exemptions applied.

2. See http://www.diodes.com/quality/lead_free.html 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: SBR60A150CT-G.

5. For packaging details, go to our website at http://www.diodes.com/products/packages.html.

Marking Information

Notes:



SBR60A150CT = Product Type Marking Code AB = Foundry and Assembly Code YYWW = Date Code Marking YY = Last Two Digits of Year (ex: 15 = 2015) WW = Week (01 to 53)



Maximum Ratings (Per Leg) (@T_A = +25°C, unless otherwise specified.)

Single phase, half wave, 60Hz, resistive or inductive load.

Characteristic		Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage		V _{RRM} Vrwm Vrm	150	V
Average Rectified Output Current Per Device	(Per Leg) (Total)	lo	30 60	А
Non-Repetitive Peak Forward Surge Current 8.3mS Single Half Sine-Wave Superimposed on Rated Load		I _{FSM}	250	А

Thermal Characteristics (Per Leg)

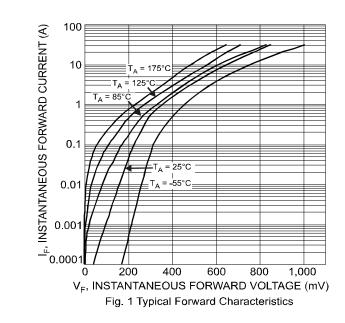
Notes:

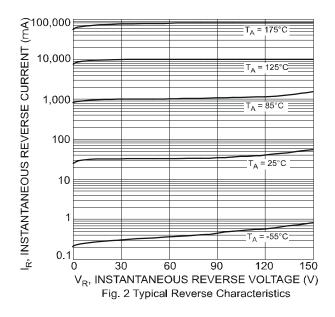
Characteristic	Symbol	Value	Unit
Typical Thermal Resistance Thermal Resistance Junction to Case (Note 6) Thermal Resistance, Junction to Ambient (Note 6)	R _θ JC R _θ JA	1.2 8	°C/W
Operating and Storage Temperature Range	TJ, T _{STG}	-65 to +175	°C

Electrical Characteristics (Per Leg) (@T_A = +25°C, unless otherwise specified.)

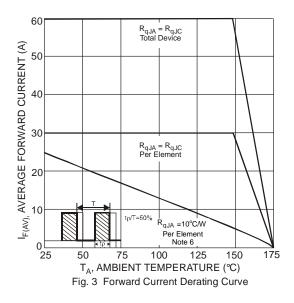
Characteristic	Symbol	Min	Тур	Max	Unit	Test Condition
Forward Voltage Drop	VF	-	0.86 0.72	0.93 0.77	V	I _F = 30A, T _J = +25°C I _F = 30A, T _J = +125°C
Leakage Current (Note 7)	I _R	-	0.05 9.5	0.3 40	mA	V _R = 150V, T _J = +25°C V _R = 150V, T _J = +125°C

Device mounted on heatsink (Black Aluminum, 50mm x 30mm x 23mm).
Short duration pulse test used to minimize self-heating effect.





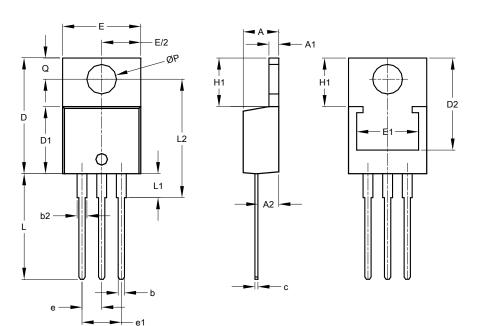




Package Outline Dimensions

Please see AP02002 at http://www.diodes.com/datasheets/ap02002.pdf for the latest version.

TO220AB



TO220AB					
Dim	Min	Max	Тур		
Α	3.56	4.82	-		
A1	0.51	1.39	-		
A2	2.04	2.92	-		
b	0.39	1.01	0.81		
b2	1.15	1.77	1.24		
c	0.356	0.61	-		
D	14.22	16.51	-		
D1	8.39	9.01	-		
D2	11.45	12.87	-		
е	-	-	2.54		
e1	-	-	5.08		
Е	9.66	10.66	-		
E1	6.86	8.89	-		
H1	5.85	6.85	-		
Г	12.70	14.73	-		
L1	-	6.35	-		
L2	15.80	16.20	16.00		
Ρ	3.54	4.08	-		
Ø	2.54	3.42	-		
All Dimensions in mm					



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