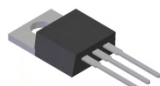
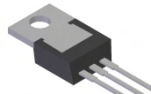
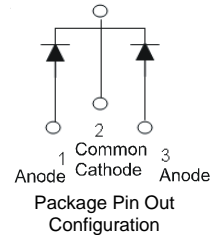


## Features

- Low Forward Voltage Drop
- Low Leakage Current
- Excellent High Temperature Stability
- Patented Super Barrier Rectifier Technology
- Soft, Fast Switching Capability
- 150°C Operating Junction Temperature
- **Lead Free Finish, RoHS Compliant (Note 2)**
- **Also Available in Green Molding Compound (Note 4)**

## 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
- Marking Information: See Page 2
- Ordering Information: See Page 2
- Weight: 1.85 grams (approximate)


 TO-220AB  
Top View

 TO-220AB  
Bottom View


## Maximum Ratings (Per Leg) @ $T_A = 25^\circ\text{C}$ 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	$V_{RRM}$	60	V
Working Peak Reverse Voltage	$V_{RWM}$		
DC Blocking Voltage	$V_{RM}$		
Average Rectified Output Current (Per Leg) (Total)	$I_o$	30 60	A
Non-Repetitive Peak Forward Surge Current 8.3mS Single Half Sine-Wave Superimposed on rated load	$I_{FSM}$	280	A

## Thermal Characteristics (Per Leg)

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance, Junction to Case	$R_{\theta JC}$	2	$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-65 to +150	$^\circ\text{C}$

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

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage Drop	$V_F$	-	0.50	0.53	V	$I_F = 15\text{A}, T_J = 25^\circ\text{C}$
			0.61	0.65		$I_F = 30\text{A}, T_J = 25^\circ\text{C}$
			0.46	0.49		$I_F = 15\text{A}, T_J = 125^\circ\text{C}$
			-	0.64		$I_F = 30\text{A}, T_J = 125^\circ\text{C}$
Leakage Current (Note 1)	$I_R$	-	0.07 15	0.2 100	mA	$V_R = 60\text{V}, T_J = 25^\circ\text{C}$ $V_R = 60\text{V}, T_J = 125^\circ\text{C}$

- Notes:
1. Short duration pulse test used to minimize self-heating effect.
  2. EU Directive 2002/95/EC (RoHS). All applicable RoHS exemptions applied. Please visit our website at [http://www.diodes.com/products/lead\\_free.html](http://www.diodes.com/products/lead_free.html).

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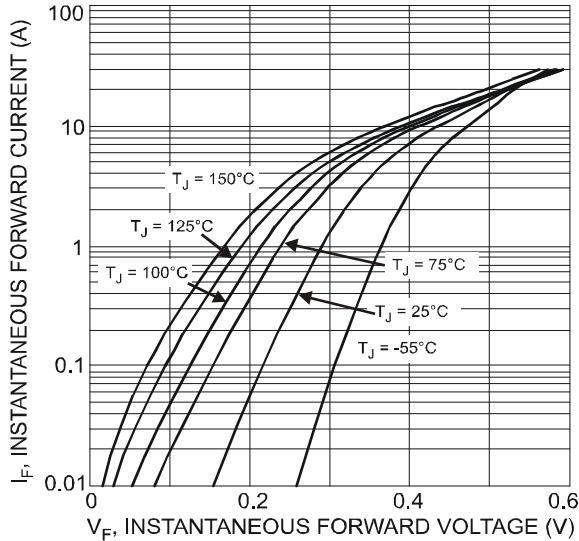


Fig. 1 Typical Forward Characteristics

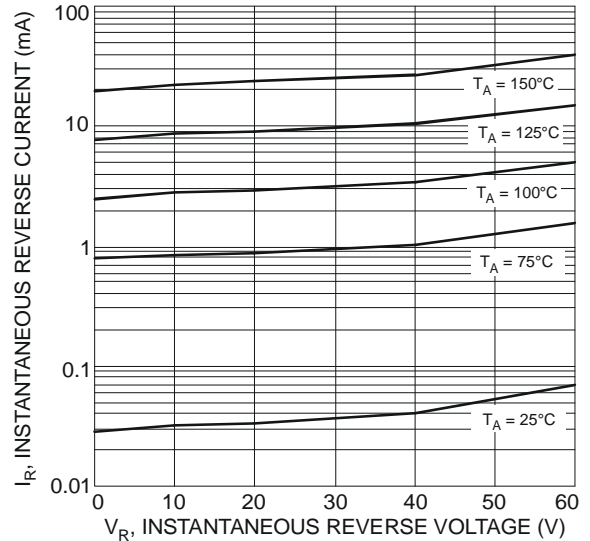


Fig. 2 Typical Reverse Characteristics

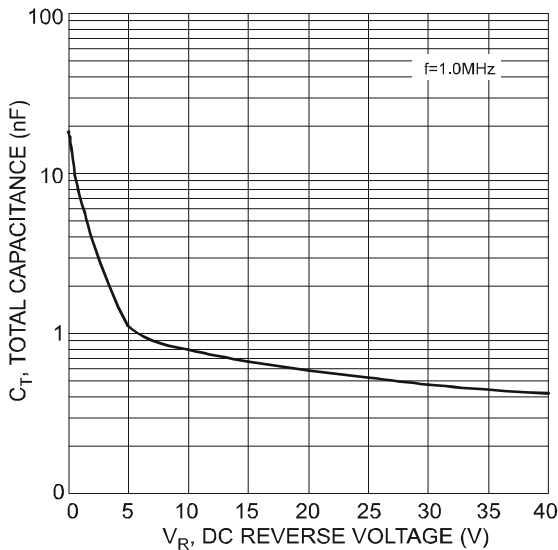


Fig. 3 Total Capacitance vs. Reverse Voltage

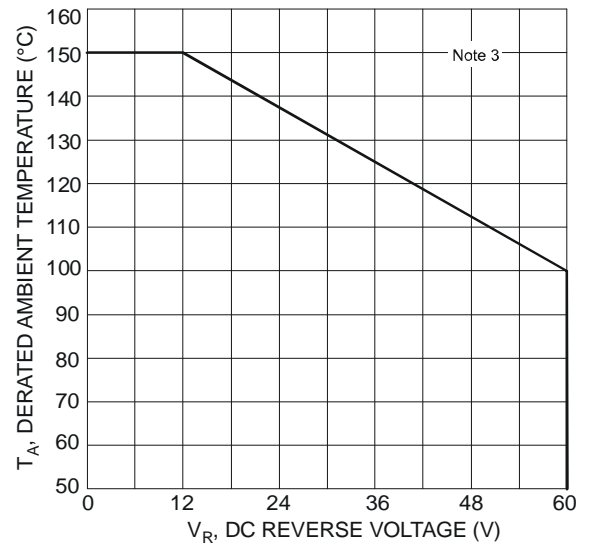


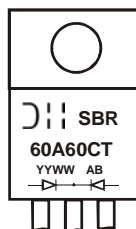
Fig. 4 Operating Temperature Derating

**Ordering Information** (Notes 3 & 4)

Part Number	Case	Packaging
SBR60A60CT	TO-220AB	50 pieces/tube
SBR60A60CT-G	TO-220AB	50 pieces/tube

Notes: 3. For packaging details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.  
4. For Green Molding Compound version part numbers, add "-G" suffix to part number above. Examples: SBR60A60CT-G.

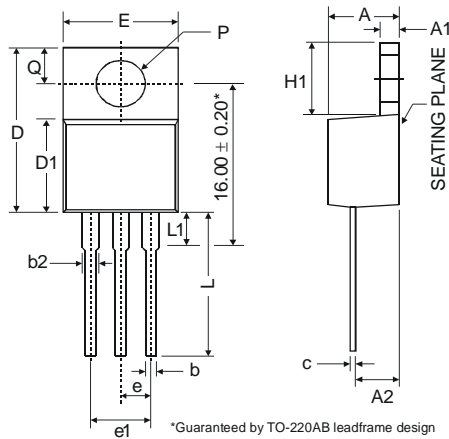
**Marking Information**



SBR60A60CT = Product Type Marking Code  
AB = Foundry and Assembly Code  
YYWW = Date Code Marking  
YY = Last two digits of year (ex: 07 = 2007)  
WW = Week (01-52)

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## 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>b2</b>	1.15	1.24	1.77
<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
<b>All Dimensions in mm</b>			

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SBR60A60CT

Document number: DS31096 Rev. 5 - 2

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