

## Product Summary

$V_{RRM}$ (V)	$I_o$ (A)	$V_F(\text{MAX})$ (V) @ +25°C	$I_R(\text{MAX})$ (mA) @ +25°C
60	10(Per leg) 20(Total)	0.75	1.0

## Description and Applications

The SBL2060CT is designed to meet the stringent requirements of commercial applications such as:

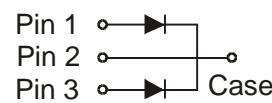
- Polarity Protection Diodes
- Re-Circulating Diodes
- Switching Diodes



TO-220AB  
Top View



TO-220AB  
Bottom View



Package Pin Out  
Configuration

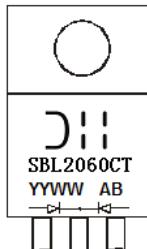
## Ordering Information (Note 4)

Part Number	Case	Packaging
SBL2060CT	TO-220AB	50/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/quality/lead\\_free.html](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 packaging details, go to our website at <http://www.diodes.com/products/packages.html>.

## Marking Information



SBL2060CT = 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 - 53)

## Maximum Ratings and Electrical Characteristics (@ $T_A = +25^\circ\text{C}$ , unless otherwise specified.)

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

For capacitive load, derate current by 20%.

Characteristic	Symbol	SBL2060CT	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$		
Working Peak Reverse Voltage	$V_{RWM}$	60	V
DC Blocking Voltage	$V_R$		
RMS Reverse Voltage	$V_{R(\text{RMS})}$	42	V
Average Rectified Output Current (Note 5) @ $T_C = +95^\circ\text{C}$	$I_O$	20	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	$I_{FSM}$	250	A
Forward Voltage Drop @ $I_F = 10\text{A}$ , $T_C = +25^\circ\text{C}$	$V_{FM}$	0.75	V
Peak Reverse Current @ $T_C = +25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_C = +100^\circ\text{C}$	$I_{RM}$	1.0 50	mA
Typical Junction Capacitance (Note 6)	$C_j$	650	pF
Typical Thermal Resistance Junction to Case (Note 5)	$R_{\theta JC}$	2.8	°C/W
Operating and Storage Temperature Range	$T_J$ , $T_{STG}$	-65 to +150	°C

Notes:  
5. Thermal resistance junction to case mounted on heatsink.  
6. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

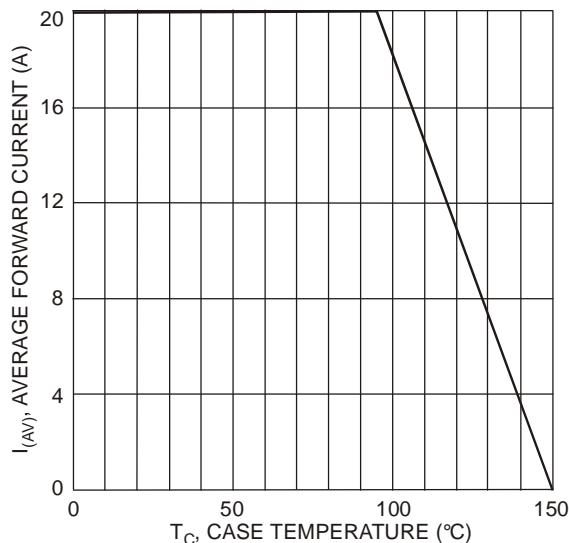


Fig. 1 Forward Current Derating Curve

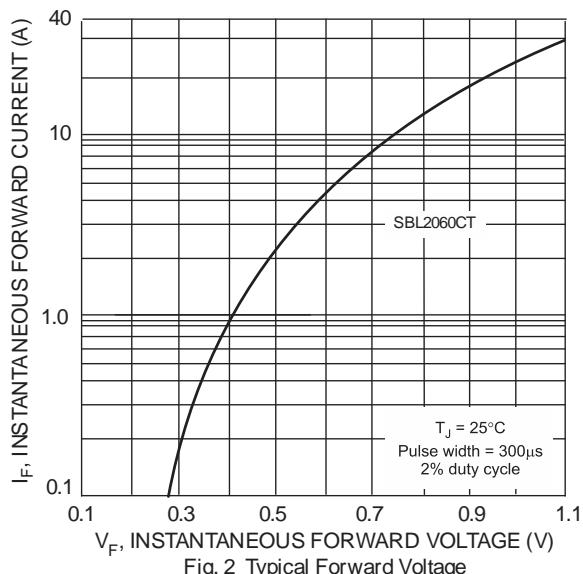


Fig. 2 Typical Forward Voltage

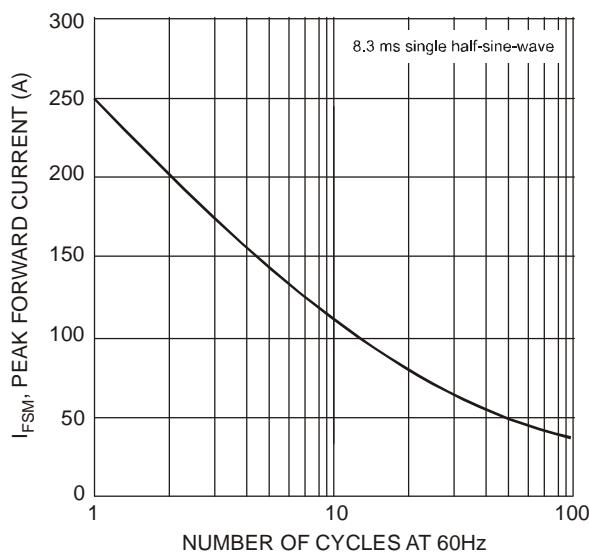


Fig. 3 Maximum Non-Repetitive Surge Current

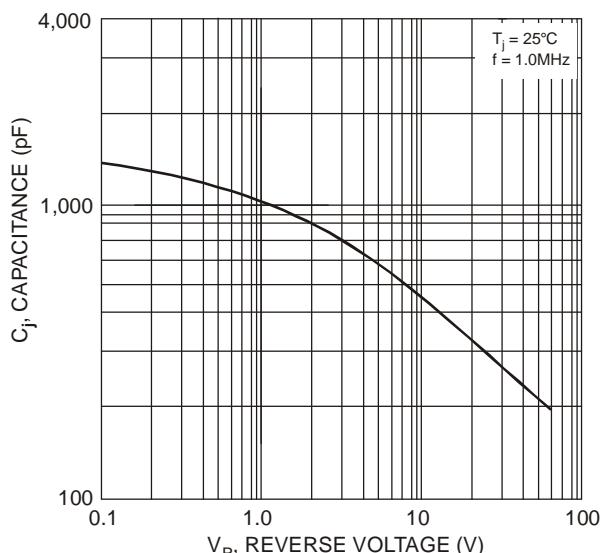


Fig. 4 Typical Junction Capacitance

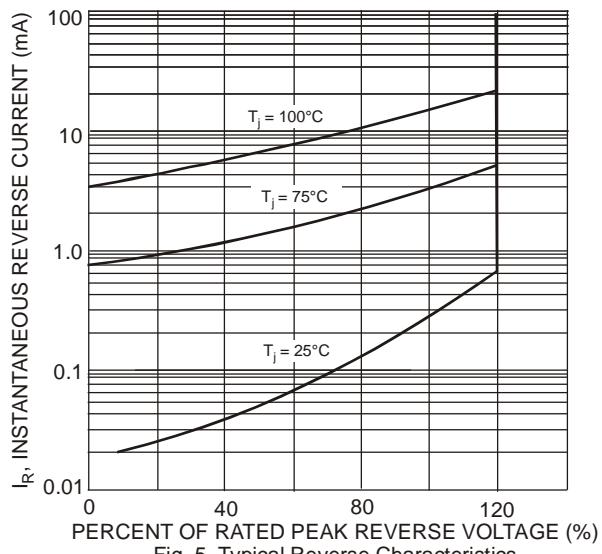
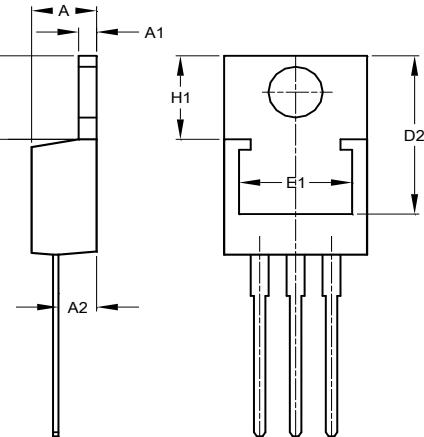
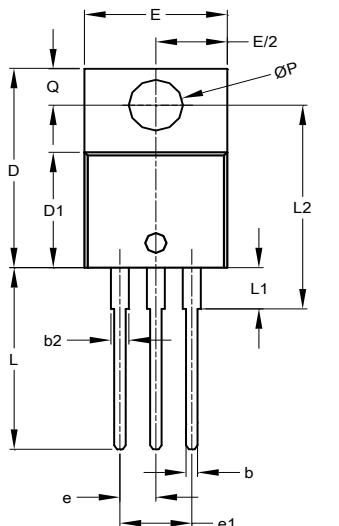


Fig. 5 Typical Reverse Characteristics

## Package Outline Dimensions

Please see AP02002 at [http://www.diodes.com/datasheets/ap0202.pdf](http://www.diodes.com/datasheets/ap02002.pdf) for the latest version.



TO220AB			
Dim	Min	Max	Typ
<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	1.01	0.81
<b>b2</b>	1.15	1.77	1.24
<b>c</b>	0.356	0.61	-
<b>D</b>	14.22	16.51	-
<b>D1</b>	8.39	9.01	-
<b>D2</b>	11.45	12.87	-
<b>e</b>	-	-	2.54
<b>e1</b>	-	-	5.08
<b>E</b>	9.66	10.66	-
<b>E1</b>	6.86	8.89	-
<b>H1</b>	5.85	6.85	-
<b>L</b>	12.70	14.73	-
<b>L1</b>	-	6.35	-
<b>L2</b>	15.80	16.20	16.00
<b>P</b>	3.54	4.08	-
<b>Q</b>	2.54	3.42	-

All Dimensions in mm

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