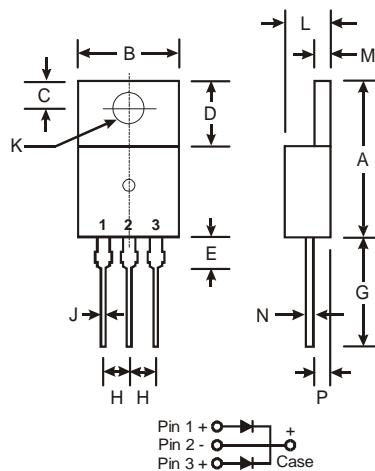


Features

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- Low Power Loss, High Efficiency
- High Surge Capability
- High Current Capability and Low Forward Voltage Drop
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications
- **Lead Free Finish, RoHS Compliant (Note 3)**

Mechanical Data

- Case: TO-220AB
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Polarity: As Marked on Body
- Terminals: Finish – Bright Tin. Solderable per MIL-STD-202, Method 208
- Marking: Type Number
- Weight: 2.24 grams (approximate)



TO-220AB		
Dim	Min	Max
A	14.48	15.75
B	10.00	10.40
C	2.54	3.43
D	5.90	6.40
E	2.80	3.93
G	12.70	14.27
H	2.40	2.70
J	0.69	0.93
K	3.54	3.78
L	4.07	4.82
M	1.15	1.39
N	0.30	0.50
P	2.04	2.79

All Dimensions in mm

Maximum Ratings and Electrical Characteristics

$\text{@ } T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	SBL 1030CT	SBL 1035CT	SBL 1040CT	SBL 1045CT	SBL 1050CT	SBL 1060CT	Unit
Peak Repetitive Reverse Voltage	V_{RRM}							
Working Peak Reverse Voltage	V_{RWM}	30	35	40	45	50	60	V
DC Blocking Voltage	V_R							
RMS Reverse Voltage	$V_{R(RMS)}$	21	24.5	28	31.5	35	42	V
Average Rectified Output Current @ $T_C = 95^\circ\text{C}$ (Note 1)	I_O				10			A
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}				175			A
Forward Voltage Drop @ $I_F = 5.0\text{A}$, $T_C = 25^\circ\text{C}$	V_{FM}			0.55		0.70		V
Peak Reverse Current @ $T_C = 25^\circ\text{C}$ at Rated DC Blocking Voltage	I_{RM}			0.5		50		mA
Typical Junction Capacitance	C_J			450				pF
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$			5.5				°C/W
Operating and Storage Temperature Range	T_J, T_{STG}			-65 to +150				°C

Notes:

1. Thermal resistance junction to case mounted on heatsink.
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
3. RoHS revision 13.2.2003. Glass and high temperature solder exemptions applied, see *EU Directive Annex Notes 5 and 7*.

DISCONTINUED

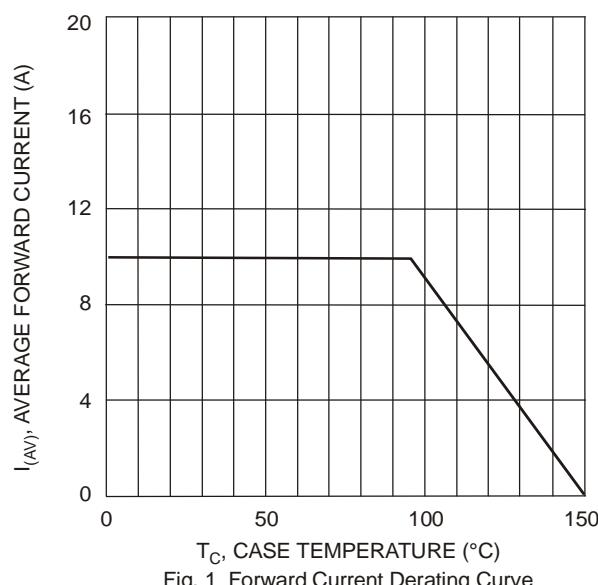


Fig. 1 Forward Current Derating Curve

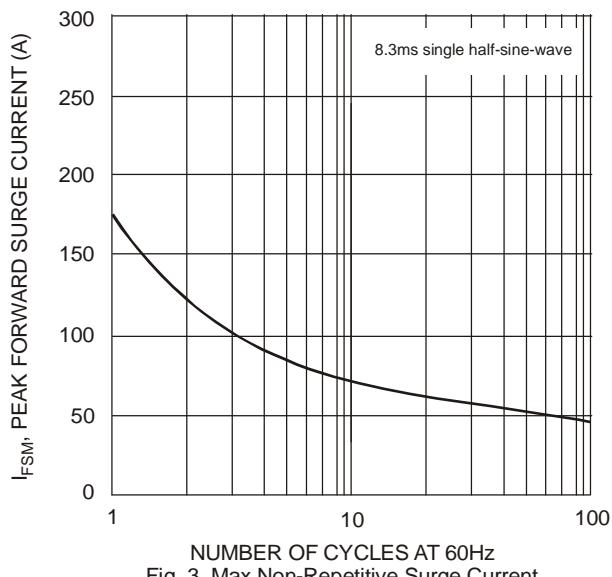


Fig. 3 Max Non-Repetitive Surge Current

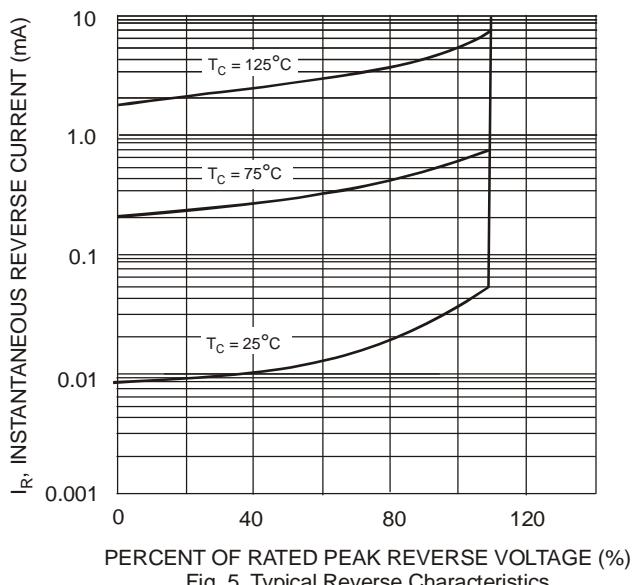


Fig. 5 Typical Reverse Characteristics

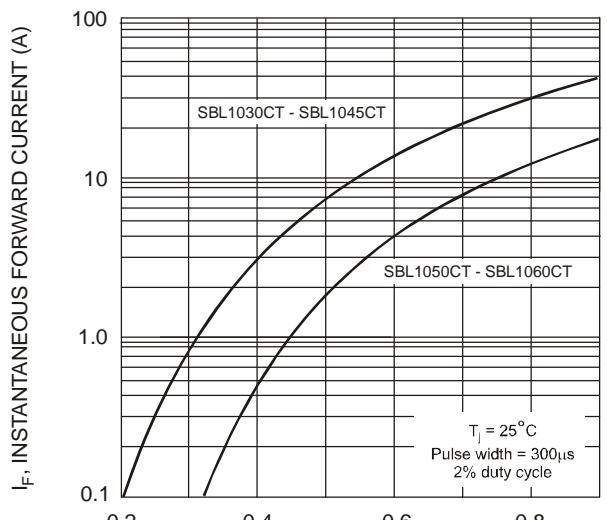


Fig. 2 Typical Forward Characteristics per Element

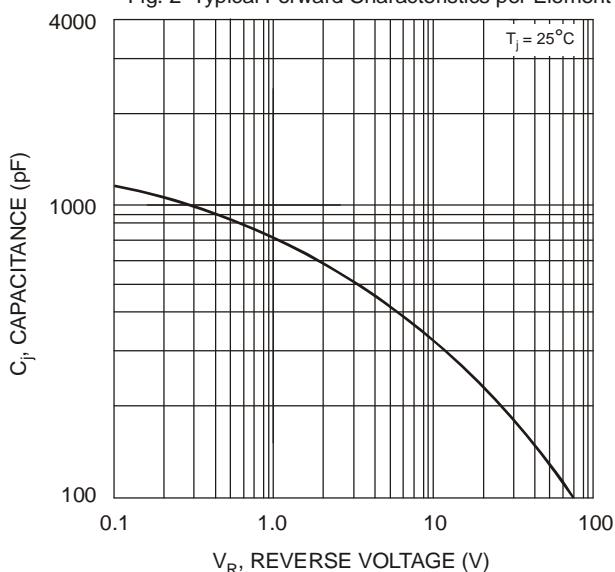


Fig. 4 Typical Junction Capacitance per Element

DISCONTINUED**Ordering Information** (Note 4)

Device	Packaging	Shipping
SBL10xxCT*	TO-220AB	50/Tube

* xx = Device type, e.g. SBL1045CT

Notes: 4. For packaging details, visit our website at <http://www.diodes.com/datasheets/ap02008.pdf>.**IMPORTANT NOTICE**

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