

SBL3030CT - SBL3040CT

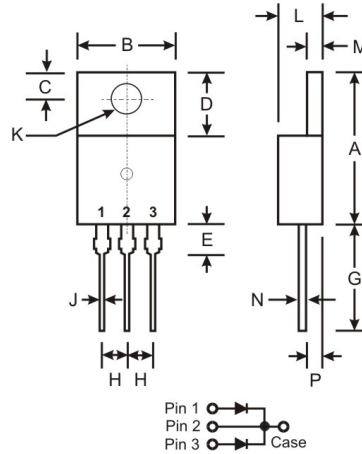
30A SCHOTTKY BARRIER RECTIFIER

Features

- 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
- Terminals: Finish – Tin. Solderable per MIL-STD-202, Method 208 **(e3)**
- Polarity: As Marked on Body
- Marking: Type Number
- Ordering Information: See Page 3
- 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 (@T_A = +25°C, unless otherwise specified.)

Single phase, half wave, 60Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

Characteristic	Symbol	SBL 3030CT	SBL 3040CT	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	30	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	21	28	V
Average Rectified Output Current (Note 1) @ T _C = 100°C	I _O	30		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 = 15A, T _C = 25°C	V _{FM}	0.55		V
Peak Reverse Current @ T _C = 25°C at Rated DC Blocking Voltage @ T _C = 100°C	I _{RM}	1.0 75		mA
Typical Total Capacitance (Note 2)	C _T	450		pF
Typical Thermal Resistance Junction to Case (Note 1)	R _{θJC}	1.5		°C/W
Operating Temperature Range	T _j	-55 to +125		°C
Storage Temperature Range	T _{STG}	-55 to +150		°C
Critical Rate of Rise Reverse Voltage	dv/dt	10,000		V/μs

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

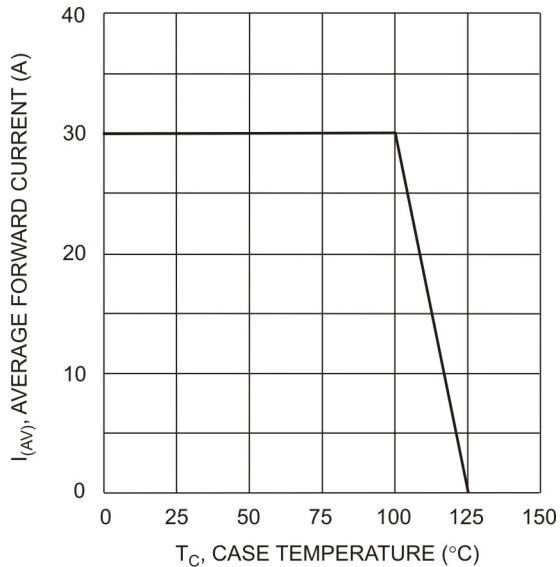


Fig. 1 Forward Current Derating Curve

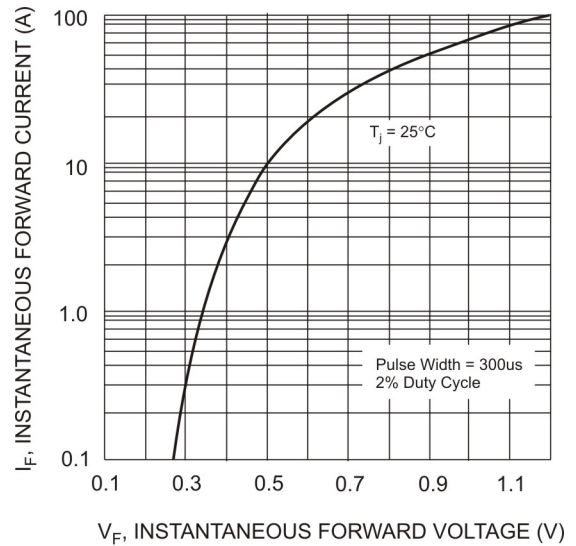


Fig. 2 Typical Forward Characteristics

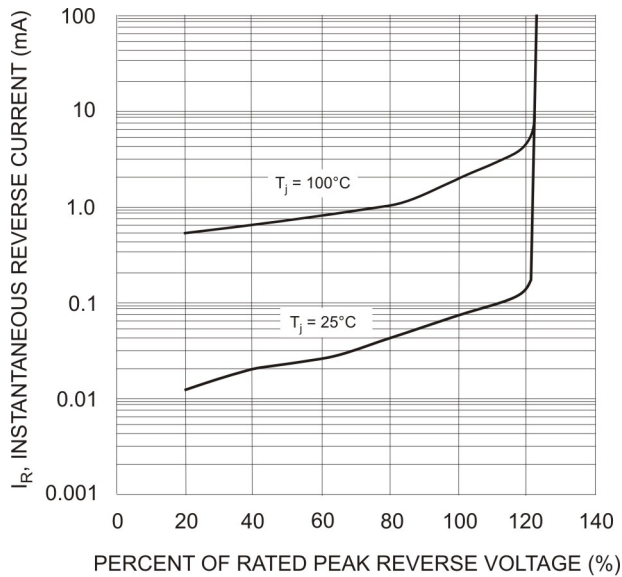


Fig. 3 Typical Reverse Characteristics

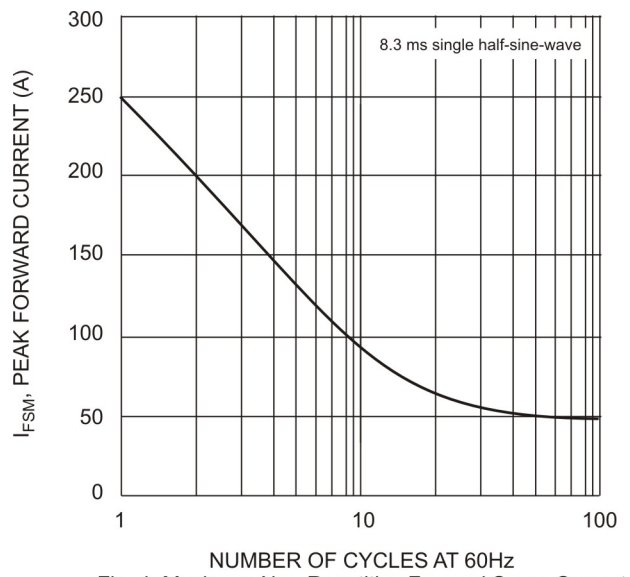


Fig. 4 Maximum Non-Repetitive Forward Surge Current

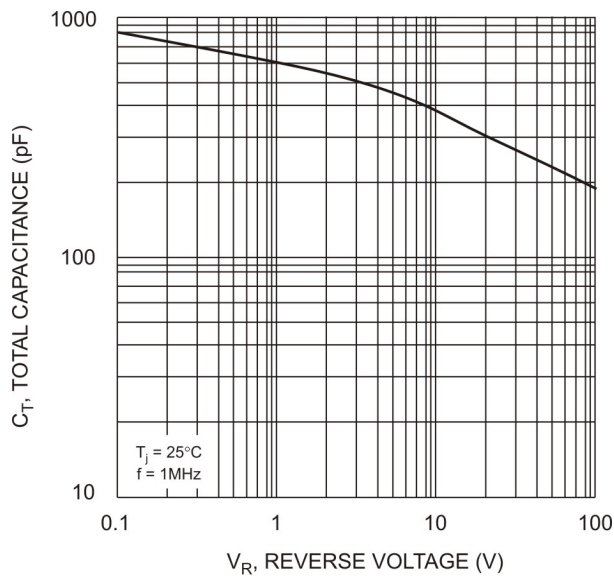


Fig. 5 Typical Total Capacitance

Ordering Information (Note 4)

Device	Packaging	Shipping
SBL3030CT	TO-220AB	50/Tube
SBL3040CT	TO-220AB	50/Tube

Notes: 4. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

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