

SBL30L30CT

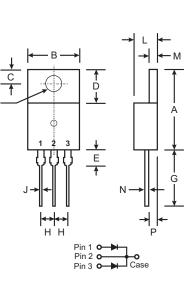
30A DUAL LOW VF SCHOTTKY BARRIER RECTIFIER

Features

- Low Power Loss, High Efficiency
- Guard Ring for Transient Protection
- High Surge Capability
- Very Low Forward Voltage Drop
- For Use in High Frequency Inverters, Free Wheeling, and Polarity Protection Applications
- Lead Free Finish, RoHS Compliant (Note 1)

Mechanical Data

- Case: TO-220AB
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Tin Finish. Solderable per MIL-STD-202, Method 208 (23)
- Polarity: See Diagram
- Marking: Type Number
- Ordering Information: See Sheet 3
- Weight: 2.24 grams (approximate)



TO-220AB				
Dim	Min	Max		
Α	14.22	15.88		
В	9.65	10.67		
С	2.54	3.43		
D	5.84	6.86		
E		6.35		
G	12.70	14.73		
Н	2.29	2.79		
J	0.51	1.14		
к	3.53Ø	4.09Ø		
L	3.56	4.83		
М	1.14	1.40		
N	0.30	0.64		
Р	2.03	2.92		
All Dimensions in mm				

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

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

Characteristic		Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage		V _{RRM} V _{RWM} V _R	30	V
RMS Reverse Voltage		V _{R(RMS)}	21	V
Average Rectified Output Current @ T _C = 140°C	Total Device Per Element	Ι _Ο	30 15	А
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave Superimposed on Rated Load Per Element		I _{FSM}	260	А
Peak Repetitive Reverse Current Per Element at $t_P = 2\mu s$, 1 KHz		I _{RRM}	1.0	A
Voltage Rate of Change		dV/dt	10,000	V/µs
Typical Thermal Resistance Junction to Case (Note 2)	Per Diode Total	$R_{ ext{ heta}JC}$	1.5 0.8	°C/W
Operating Temperature Range		Tj	-65 to +150	°C
Storage Temperature Range		T _{STG}	-65 to +150	°C

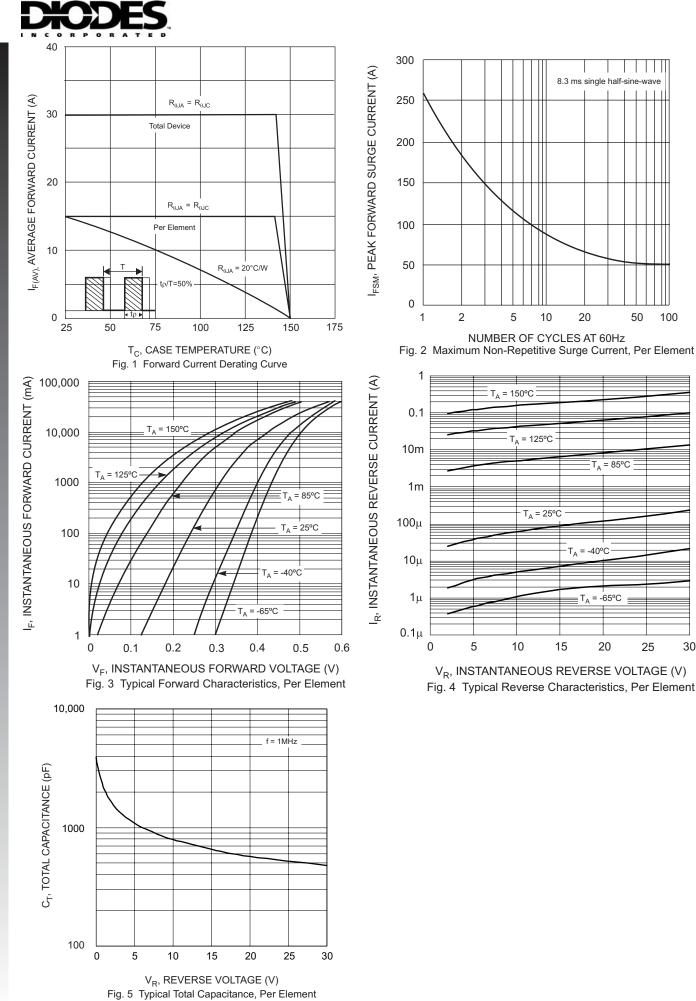
Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Тур	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 3)	V _{(BR)R}	30	_	_	V	I _R = 1.5mA
Forward Voltage Per Element	VF		 0.52 	0.46 0.38 0.57 0.50	V	$\begin{array}{l} @ \ \ I_F = 15A, \ T_j = 25^\circ C \\ @ \ \ I_F = 15A, \ T_j = 125^\circ C \\ @ \ \ I_F = 30A, \ T_j = 25^\circ C \\ @ \ \ I_F = 30A, \ T_j = 125^\circ C \end{array}$
Peak Reverse Current Per Element (Note 3)	I _R			1.0 300	mA mA	

Notes: 1. RoHS revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see EU Directive Annex, Notes 5 and 7.

- 2. Thermal Resistance Junction to Case: Device mounted on 200x200x5mm aluminum plate.
- 3. Short duration test pulse used to minimize self-heating effect.

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NEW PRODUCT

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Ordering Information (Note 4)

Device	Packaging	Shipping
SBL30L30CT	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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