

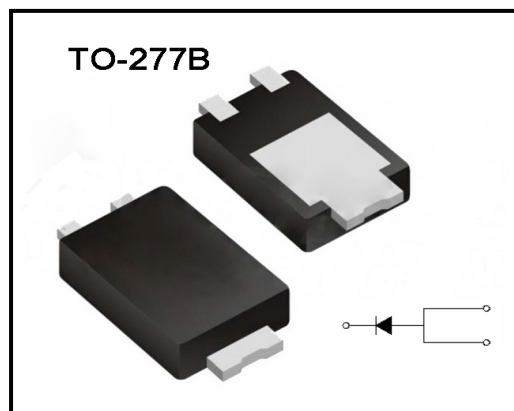
NSB1045L

Schottky Barrier Diode

Features

- Excellent high temperature stability
- Low forward voltage
- Low power loss/ high efficiency
- High forward surge capability
- Ideal for automated placement
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition

Package



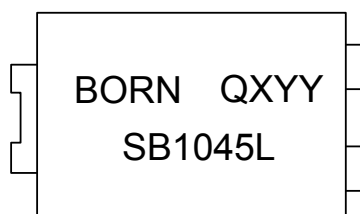
Applications

The Schottky barrier rectifier is designed for high frequency miniature switched mode power supplies such as adapters, lighting and on-board DC/DC converters.

Mechanical Data

- Case: TO-277B
- Polarity: Indicated by cathode band
- Moisture sensitivity level: level 1, per J-STD-020
- Molding compound meets UL 94 V-0 flammability rating
- Terminal: Matte tin plated leads, solderable per JESD22-B102 Meet JESD 201 class 2 whisker test
- Weight: 0.095g (approximately)

Marking



Ordering information

Order code	Package	Base qty	Delivery mode
NSB1045L	TO-277B	5K	Tape and Reel



NSB1045L

Schottky Barrier Diode

Maximum Ratings (@T_A=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{RRM}	Maximum Repetitive Peak Reverse Voltage	45	V
I _{F(AV)}	Maximum Average Forward Rectified Current	10	A
I _{FSM}	Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per diode	150	A
V _F	Maximum instantaneous forward voltage per diode (Note1) @I _F =10A	0.51	V
I _R	Maximum instantaneous reverse current per diode at rated reverse voltage	200	uA
R _{θJL}	Typical thermal resistance	11	°C/W
T _J , T _{STG}	Operating Junction and Storage Temperature Range	-55 to +150	°C

Note 1: Pulse Test with Pulse Width=300μs, 1% Duty Cycle.



Typical Performance Characteristics ($T_A = 25^\circ\text{C}$, unless otherwise noted)

Figure 1: Forward Current Derating Curve

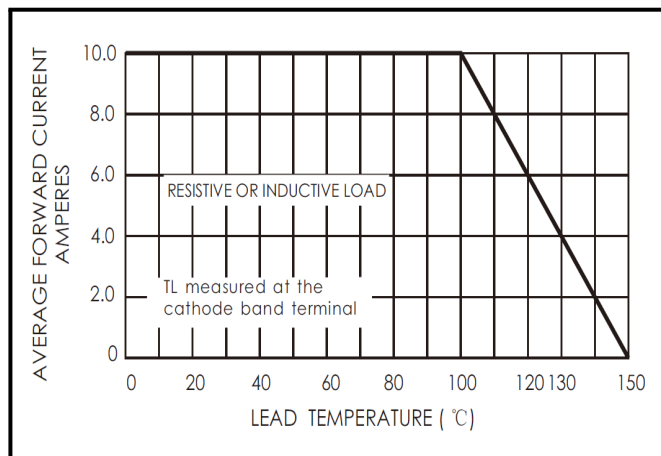


Figure 2: Typical Forward Characteristics

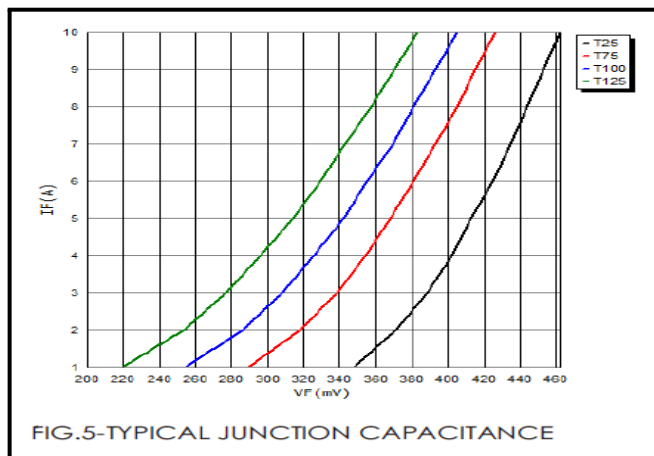


Figure 3: Max. Non-Repetitive Forward Surge Current

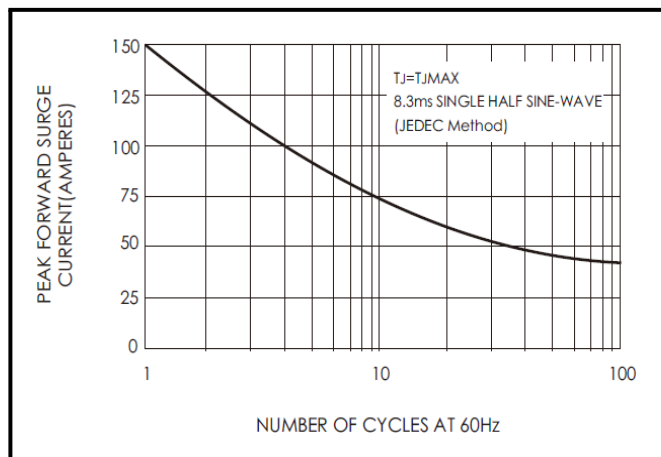


Figure 4: Typical Reverse Characteristics

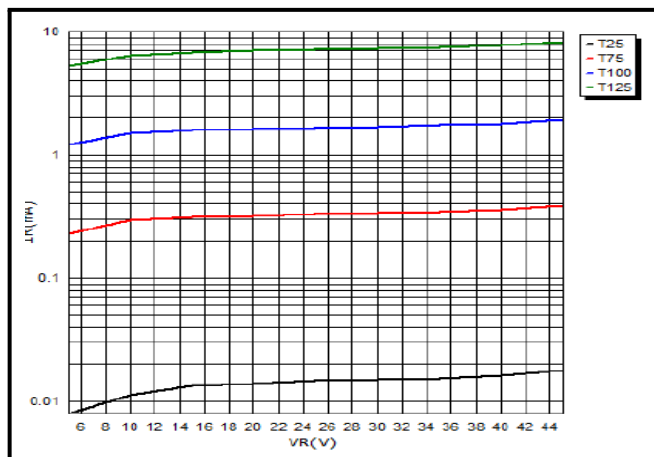
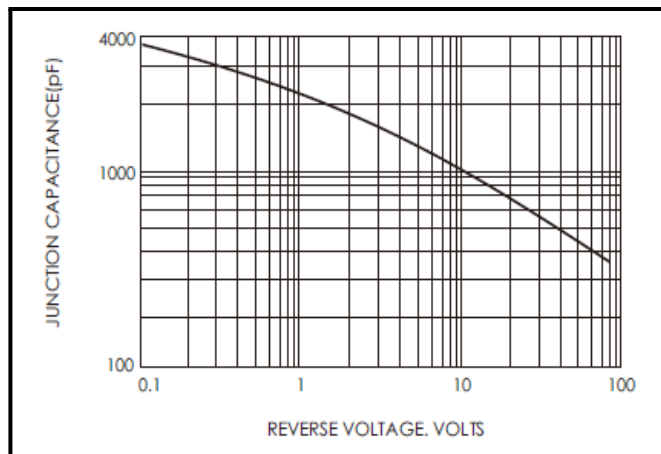


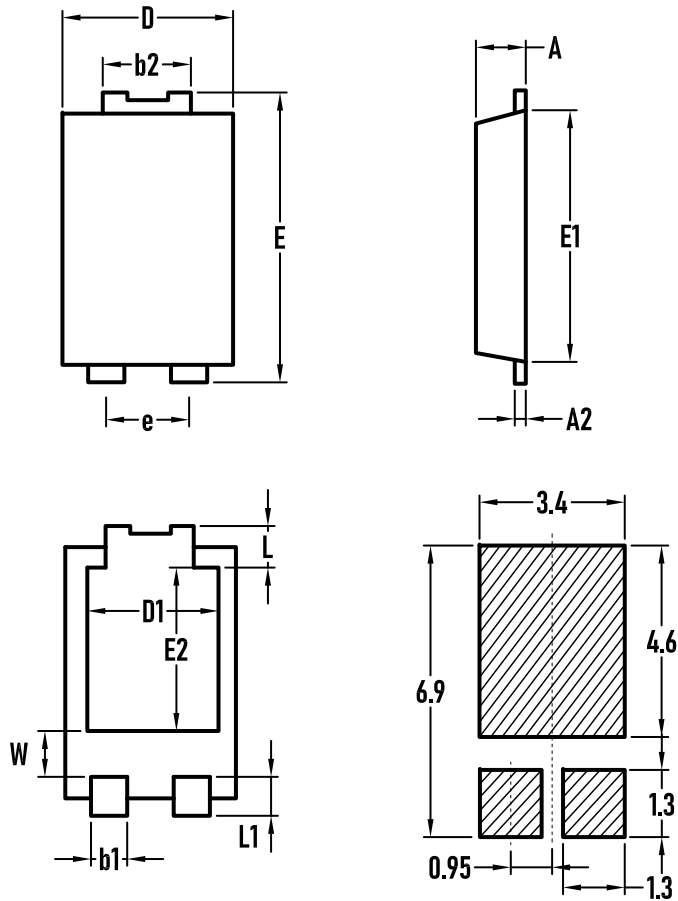
Figure 5: Typical Junction Capacitance



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Schottky Barrier Diode

Outline Drawing - TO-277B



SYMBOL	MILLIMETER	
	MIN.	MAX.
A	1.05	1.2
A2	0.25	0.4
b1	0.8	1.0
b2	1.7	1.9
D	4.1	4.3
D1	3.0	3.3
E	6.4	6.6
e	1.86	
E1	5.6	5.8
E2	3.52	
L	0.68	0.88
L1	0.85	1.1
W	1.1	1.4

