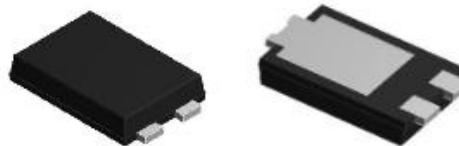


20A, 100V Low Forward Voltage Schottky Rectifier

FEATURES

- Trench MOS Schottky barrier diode
- Low forward voltage drop
- Low profile - typical body height 1.1 mm
- Moisture sensitivity: level 1, per J-STD-020
- High temperature soldering guaranteed: 260°C/10 seconds
- RoHS Compliant
- Halogen-free according to IEC 61249-2-21 definition

TO-277B



**RoHS
COMPLIANT**

**HALOGEN
FREE**



MECHANICAL DATA

- Case: TO-277B
- Case material: molding compound meets UL 94V-0 flammability rating

TYPICAL APPLICATION

General purpose use in low voltage high frequency inverters, freewheeling, DC/DC converters, and polarity protection applications.

MAXIMUM RATINGS

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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Average Forward Rectified Current	$I_{F(AV)}$	20	A
Peak forward surge current (8.3 ms single half sine-wave superimposed on rated load)	I_{FSM}	320	A
Operating Junction Temperature Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS

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

Parameter	Test Conditions	Symbol	Value		Unit
			Typ.	Max.	
Forward Voltage@ $I_F=3\text{A}$	$T_A=25^\circ\text{C}$	V_F	0.41	0.44	V
	$T_A=125^\circ\text{C}$		0.37	0.4	
Forward Voltage@ $I_F=20\text{A}$	$T_A=25^\circ\text{C}$	V_F	0.61	0.64	
	$T_A=125^\circ\text{C}$		0.55	0.58	
Reverse Current @ V_{RRM}	$T_A=25^\circ\text{C}$	I_R	50	120	uA
	$T_A=125^\circ\text{C}$		35	100	
Typical Thermal Resistance		$R_{\theta JA}$	100		°C/W

20A, 100V Low Forward Voltage Schottky Rectifier

RATINGS AND CHARACTERISTIC CURVES

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

FIG.1: Forward Output Current Derating Curve

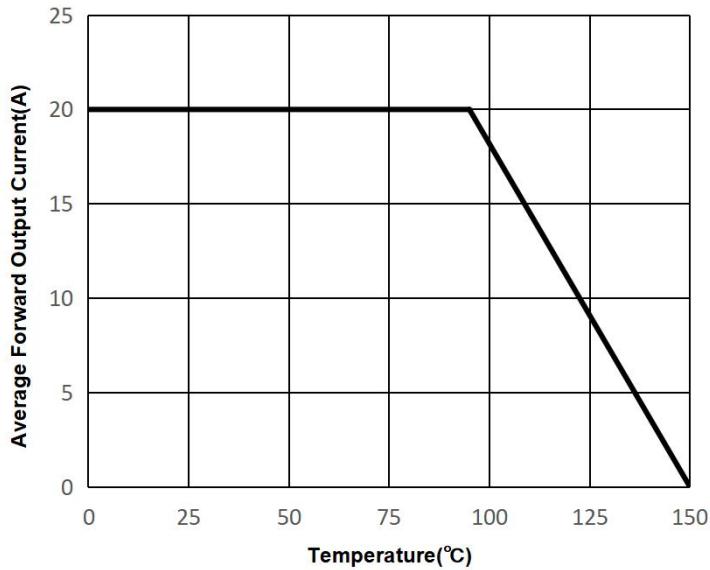


FIG.2: Maximum Non-Repetitive Peak Forward Surge Current

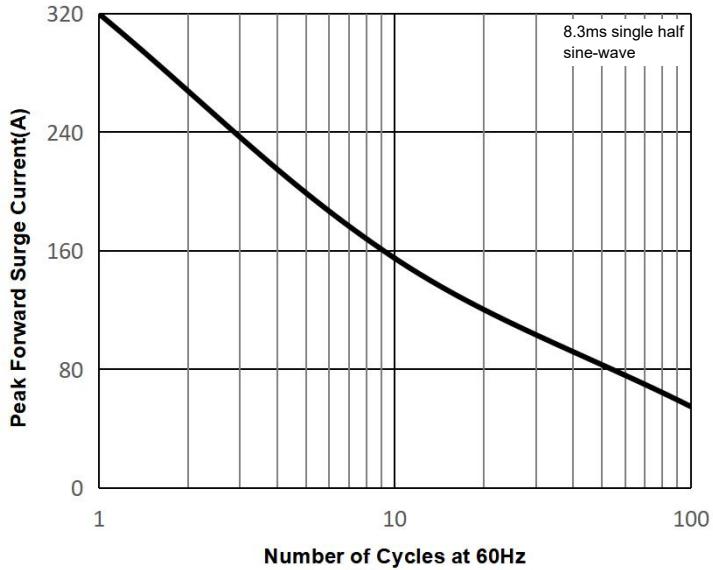


FIG.3: Typical Forward Characteristics

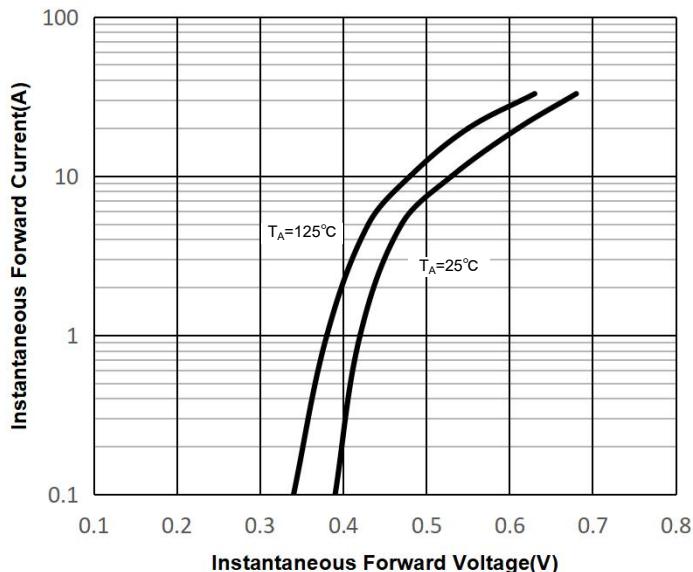
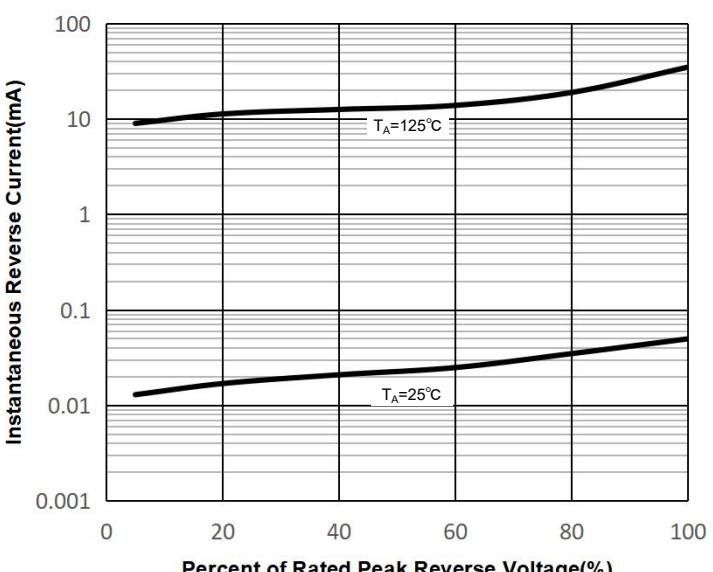
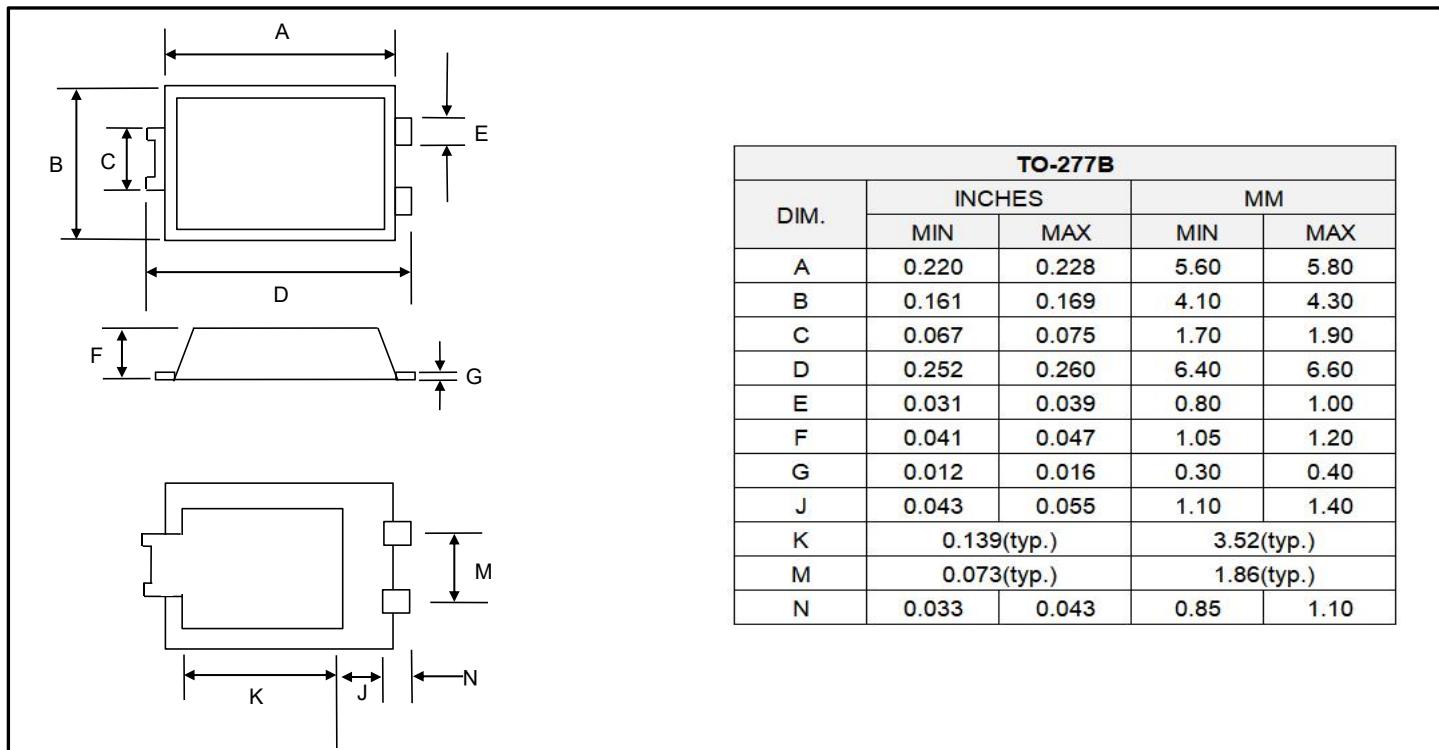


FIG.4: Typical Reverse Characteristics



20A, 100V Low Forward Voltage Schottky Rectifier

PACKAGE OUTLINE DIMENSIONS



The diagram illustrates the TO-277B package outline with two views: top and bottom. The top view shows a rectangular body with lead wires extending from the right side. Dimensions labeled A, B, C, D, E, F, G, and M are indicated. Dimension A is the total width, B is the total height, C is the lead thickness, D is the body width, E is the lead spacing, F is the lead height, and G is the lead pitch. Dimension M is the lead thickness on the bottom view. The bottom view shows the lead wires and their spacing, with dimensions K, J, and N indicated.

TO-277B				
DIM.	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.220	0.228	5.60	5.80
B	0.161	0.169	4.10	4.30
C	0.067	0.075	1.70	1.90
D	0.252	0.260	6.40	6.60
E	0.031	0.039	0.80	1.00
F	0.041	0.047	1.05	1.20
G	0.012	0.016	0.30	0.40
J	0.043	0.055	1.10	1.40
K	0.139(typ.)		3.52(typ.)	
M	0.073(typ.)		1.86(typ.)	
N	0.033	0.043	0.85	1.10

PACKING INFORMATION

Package	Reel(PCS)	Inner Box(PCS)	Carton(PCS)
TO-277B	5,000	10,000	80,000