# 15A, 100V Low Forward Voltage Schottky Rectifier

TO-277B

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#### **FEATURES**

- Trench MOS Schottky barrier diode
- Low forward voltage drop
- Low profile typical body height 1.1 mm
- High temperature soldering guaranteed: 260°C/10 seconds -

#### **RoHS Compliant**

- Halogen-free according to IEC 61249-2-21 definition

# Cathode & Heatsink Anode 2

#### **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<sub>A</sub>=25℃ unless otherwise noted

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	100	V
Average Forward Rectified Current	I <sub>F(AV)</sub>	15	Α
Peak forward surge current (8.3 ms single half sine-wave superimposed on rated load)	I <sub>FSM</sub>	250	Α
Operating Junction Temperature Range	T <sub>J</sub>	-55 to +150	
Storage Temperature Range	T <sub>STG</sub>	-55 to +150	

#### **ELECTRICAL CHARACTERISTICS**

 $T_A$ =25°C unless otherwise noted

Parameter	Test Conditions	Symbol	Value		I I I I I
			Тур.	Max.	Unit
Forward Voltage@I <sub>F</sub> =15A	T <sub>A</sub> =25℃	V <sub>F</sub>	0.65	0.7	V
	T <sub>A</sub> =125℃		0.58	0.63	
Reverse Current @ V <sub>RRM</sub>	T <sub>A</sub> =25℃	I <sub>R</sub>	30	75	uA
	T <sub>A</sub> =125℃		20	50	mA
Typical Thermal Resistance		$R_{\theta JA}$	68		.C\M



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T<sub>A</sub>=25℃ unless otherwise noted

FIG.1: Forward Output Current Derating Curve

**RATINGS AND CHARACTERISTIC CURVES** 

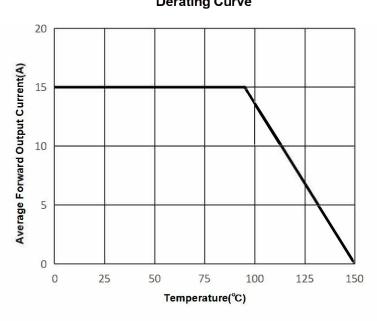


FIG.2: Maximum Non-Repetitive Peak Forward Surge Current

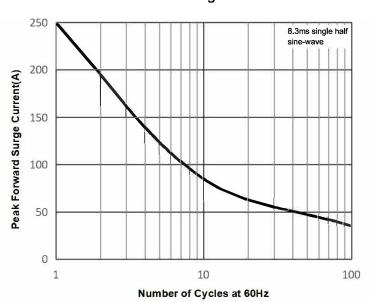


FIG.3: Typical Forward Characteristics

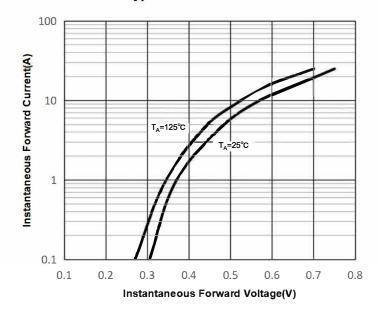
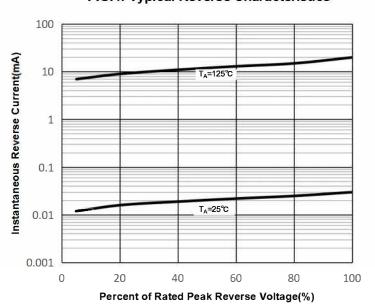


FIG.4: Typical Reverse Characteristics

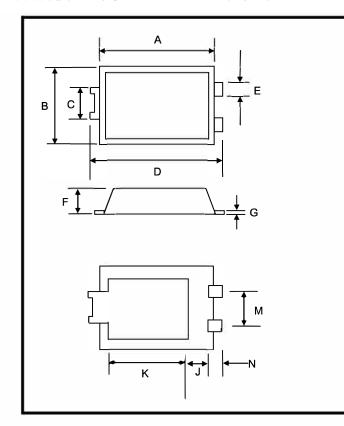


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# **PACKAGE OUTLINE DIMENSIONS**



		TO-277B		
DIM	INCHES		MM	
DIM.	MIN	MAX	MIN	MAX
Α	0.220	0.228	5.60	5.80
В	0.161	0.169	4.10	4.30
С	0.067	0.075	1.70	1.90
D	0.252	0.260	6.40	6.60
Е	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.)	
М	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	



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