

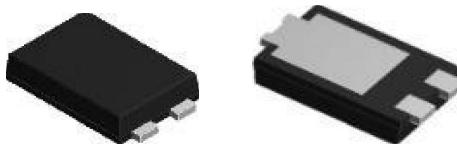
## FEATURES

- 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

**TO-277B**



## 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	$V_{RRM}$	80	V
Average Forward Rectified Current	$I_{F(AV)}$	15	A
Peak forward surge current (8.3 ms single half sine-wave superimposed on rated load)	$I_{FSM}$	250	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

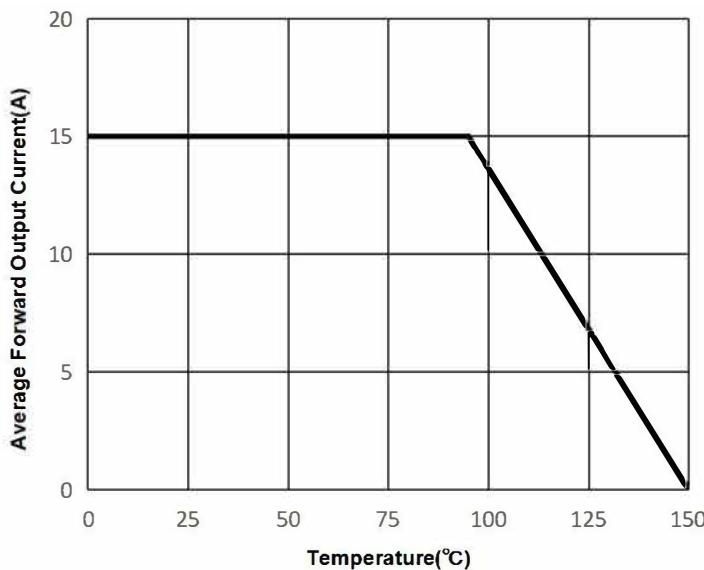
Parameter	Test Conditions	Symbol	Value		Unit
			Typ.	Max.	
Forward Voltage@ $I_F=5\text{A}$	$T_A=25^\circ\text{C}$	$V_F$	0.44	0.47	V
	$T_A=125^\circ\text{C}$		0.4	0.43	
Forward Voltage@ $I_F=15\text{A}$	$T_A=25^\circ\text{C}$	$V_F$	0.54	0.58	V
	$T_A=125^\circ\text{C}$		0.49	0.53	
Reverse Current @ $V_{RRM}$	$T_A=25^\circ\text{C}$	$I_R$	30	80	uA
	$T_A=125^\circ\text{C}$		15	60	
Typical Thermal Resistance		$R_{\theta JA}$	80		°C/W



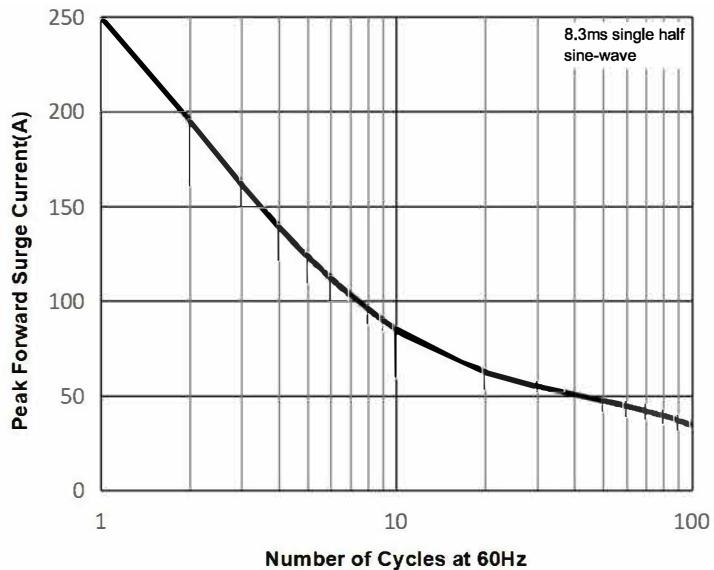
## RATINGS AND CHARACTERISTIC CURVES

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

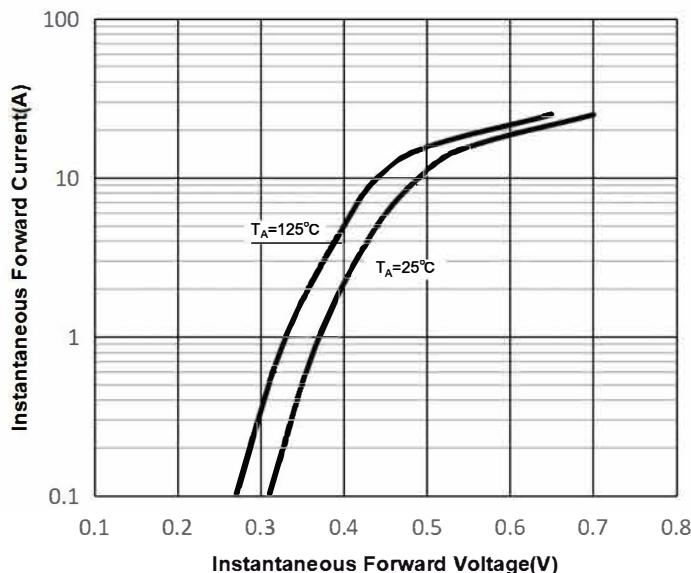
**FIG.1: Forward Output Current Derating Curve**



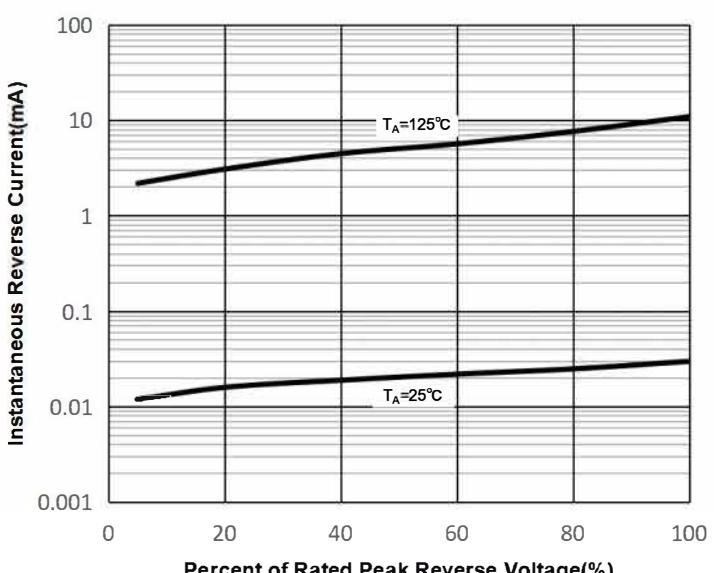
**FIG.2: Maximum Non-Repetitive Peak Forward Surge Current**



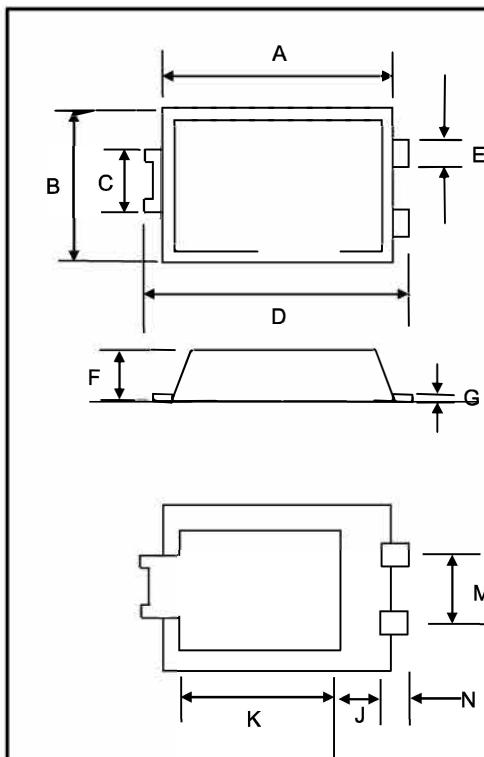
**FIG.3: Typical Forward Characteristics**



**FIG.4: Typical Reverse Characteristics**



**PACKAGE OUTLINE DIMENSIONS**



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



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