

### 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 AC to DC wave rectification for SMPS, lighting, adapter, charger, home appliance, office equipment and telecommunication.

### 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	$I_{F(AV)}$	10	A
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load)	$I_{FSM}$	240	A
Operating Junction Temperature Range	$T_J$	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150	$^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS

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

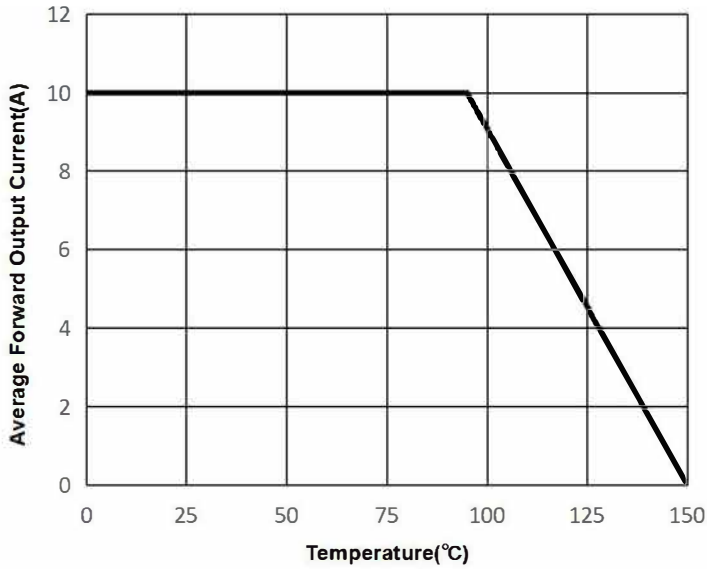
Parameter	Test Conditions	Symbol	Value		Unit
			Typ.	Max.	
Forward Voltage@ $I_F=3\text{A}$	$T_A=25^\circ\text{C}$	$V_F$	0.43	0.46	V
	$T_A=125^\circ\text{C}$		0.39	0.42	
Forward Voltage@ $I_F=10\text{A}$	$T_A=25^\circ\text{C}$		0.54	0.57	
	$T_A=125^\circ\text{C}$		0.49	0.52	
Reverse Current @ $V_{RRM}$	$T_A=25^\circ\text{C}$	$I_R$	30	70	$\mu\text{A}$
	$T_A=125^\circ\text{C}$		20	50	$\text{mA}$
Typical Thermal Resistance (junction to ambient)		$R_{\theta JA}$	102		$^\circ\text{C}/\text{W}$



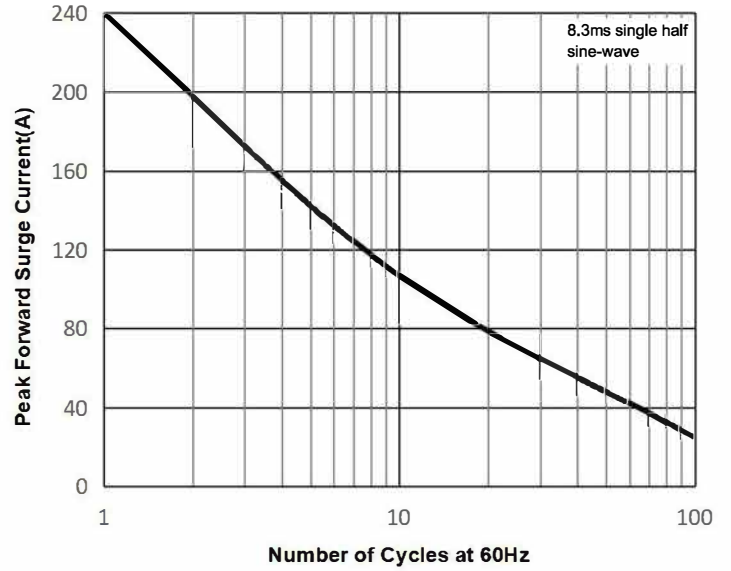
**RATINGS AND CHARACTERISTIC CURVES**

T<sub>A</sub>=25°C unless otherwise noted

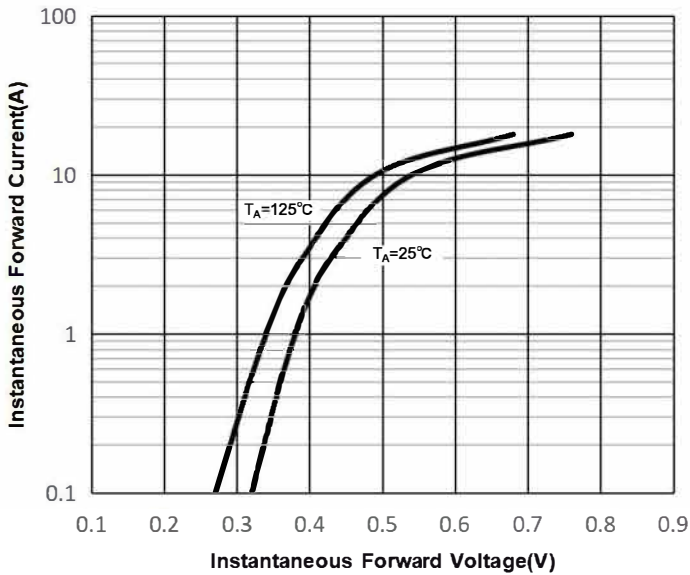
**FIG.1: Forward Output Current Derating Curve**



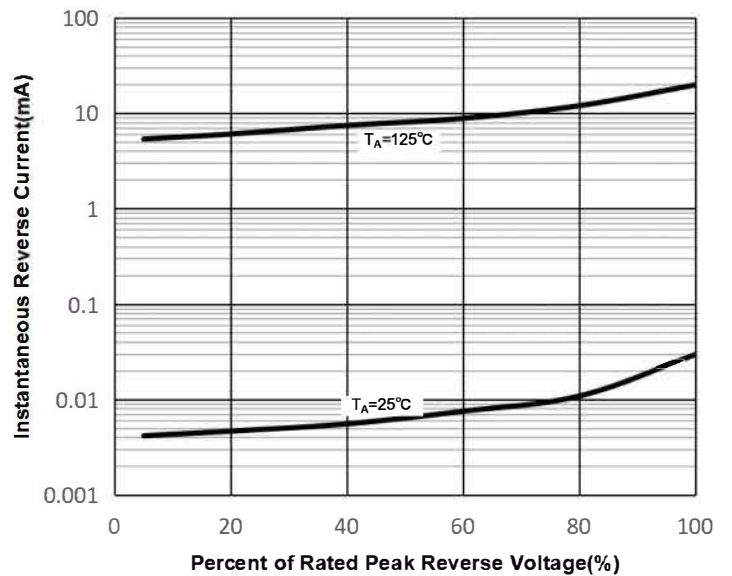
**FIG.2: Maximum Non-Repetitive Peak Forward Surge Current**



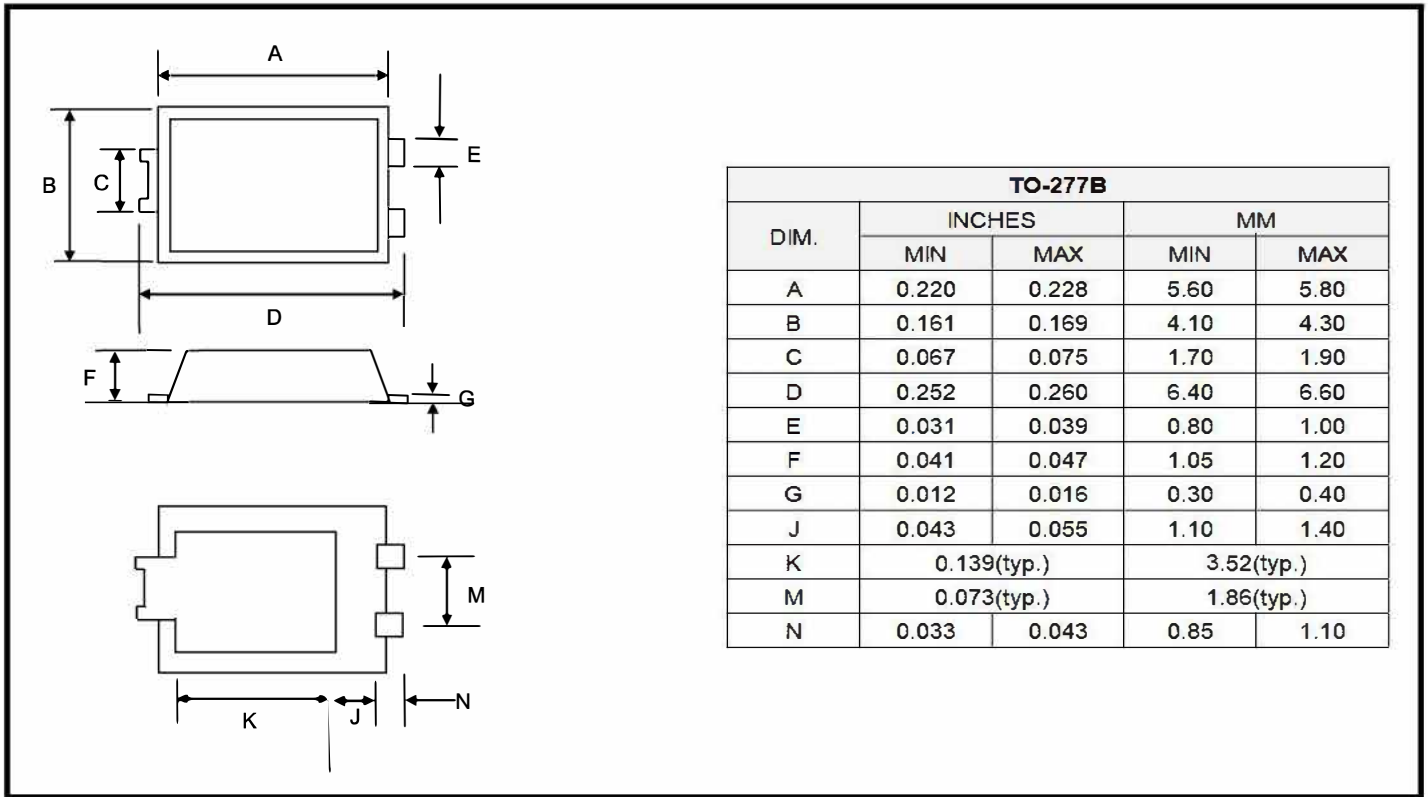
**FIG.3: Typical Forward Characteristics**



**FIG.4: Typical Reverse Characteristics**



**PACKAGE OUTLINE DIMENSIONS**



**PACKING INFORMATION**

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



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