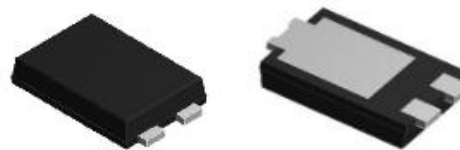


12A, 100V Low Forward Voltage Schottky Rectifier

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 AC to DC bridge 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}	100	V
Average Forward Rectified Current	$I_{F(AV)}$	12	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	$^\circ\text{C}$
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	0.45	0.5	V
	$T_A=125^\circ\text{C}$		0.39	0.43	
Forward Voltage@ $I_F=12\text{A}$	$T_A=25^\circ\text{C}$		0.62	0.67	V
	$T_A=125^\circ\text{C}$		0.53	0.57	
Reverse Current @ V_{RRM}	$T_A=25^\circ\text{C}$	I_R	25	100	μA
	$T_A=125^\circ\text{C}$		10	50	mA
Typical Thermal Resistance		$R_{\theta JA}$	68		$^\circ\text{C}/\text{W}$
		$R_{\theta JL}$	10		

12A, 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

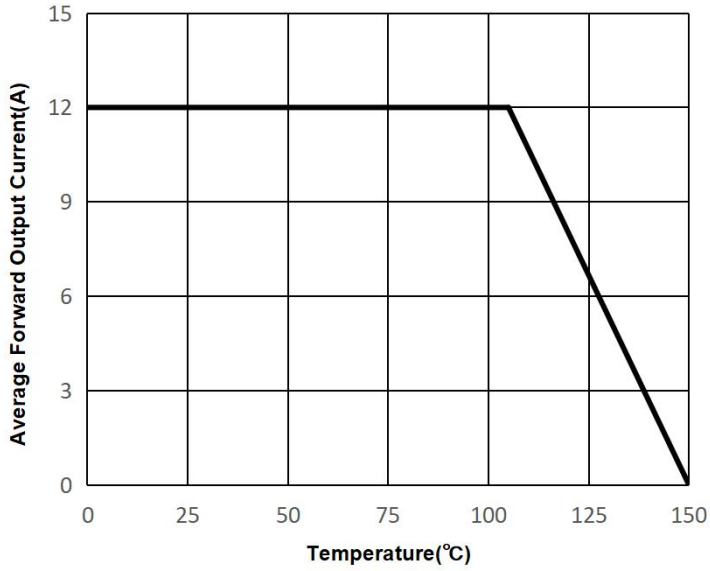


FIG.2: Maximum Non-Repetitive Peak Forward Surge Current

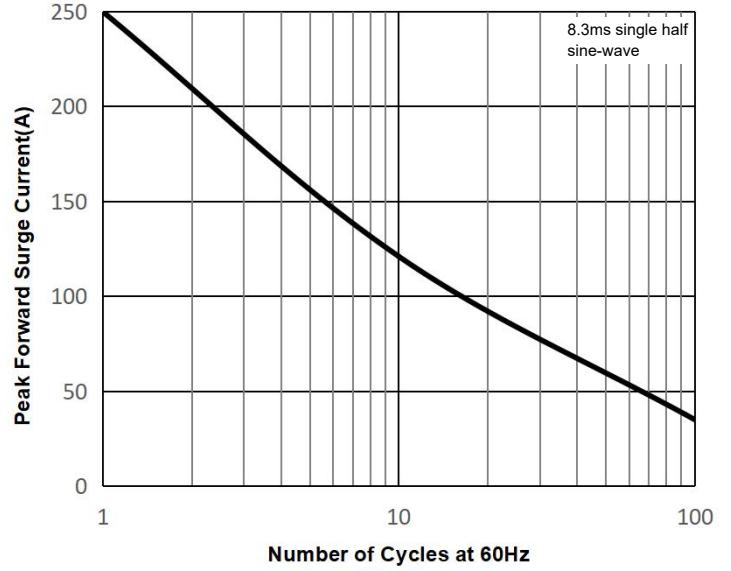


FIG.3: Typical Forward Characteristics

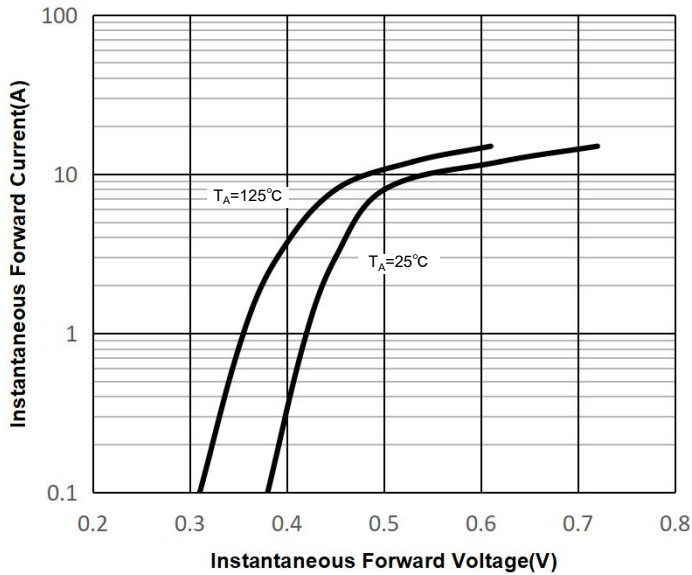
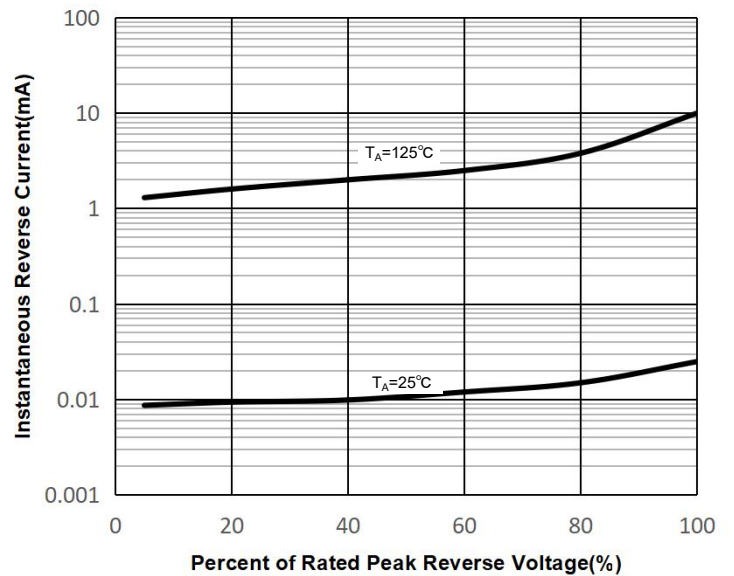
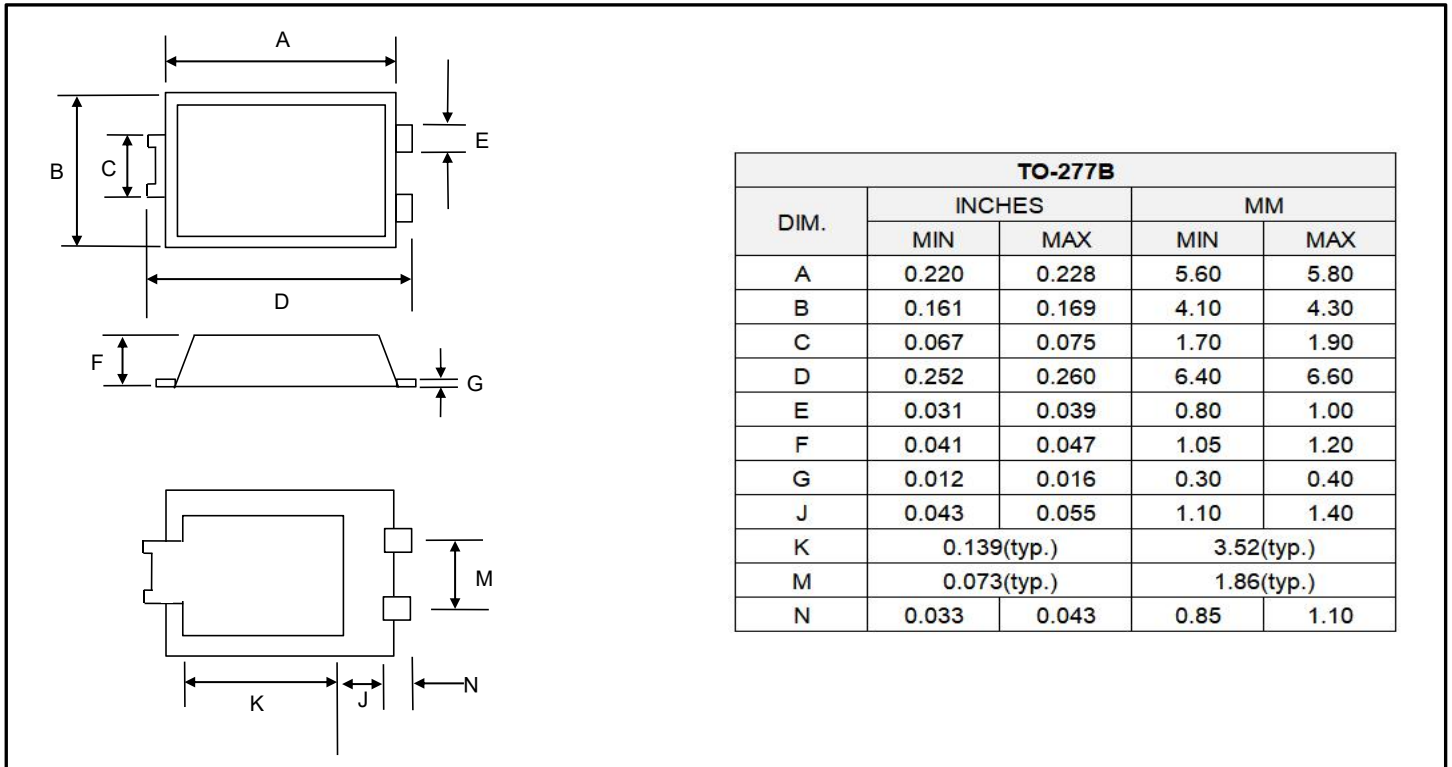


FIG.4: Typical Reverse Characteristics



12A, 100V Low Forward Voltage Schottky Rectifier

PACKAGE OUTLINE DIMENSIONS



PACKING INFORMATION

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