

10A, 150V Low Forward Voltage Schottky Rectifier

FEATURES

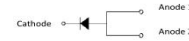
- Trench MOS schottky barrier diode
- Low forward voltage drop
- Low profile - typical body height 1.1 mm
- Moisture sensitivity: level 1, per J-STD-020
- High temperature soldering guaranteed: 260°C/10 seconds
- RoHS compliant
- Halogen-free according to IEC 61249-2-21 definition

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 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}	150	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	0.61	0.64	V
	$T_A=125^{\circ}\text{C}$		0.55	0.58	
Forward Voltage@ $I_F=10\text{A}$	$T_A=25^{\circ}\text{C}$		0.76	0.8	
	$T_A=125^{\circ}\text{C}$		0.69	0.72	
Reverse Current @ V_{RRM}	$T_A=25^{\circ}\text{C}$	I_R	10	50	μA
	$T_A=125^{\circ}\text{C}$		6	35	mA
Typical Thermal Resistance (junction to ambient)		$R_{\theta JA}$	102		$^{\circ}\text{C}/\text{W}$

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RATINGS AND CHARACTERISTIC CURVES

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

FIG.1: Forward Output Current Derating Curve

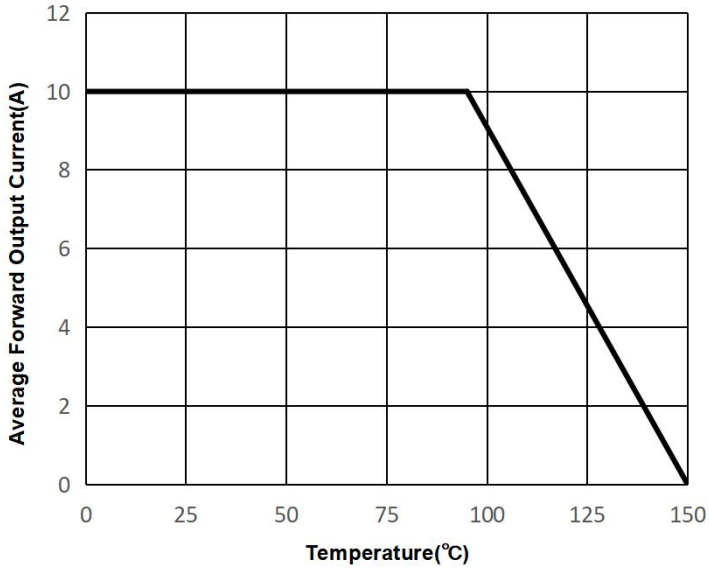


FIG.2: Maximum Non-Repetitive Peak Forward Surge Current

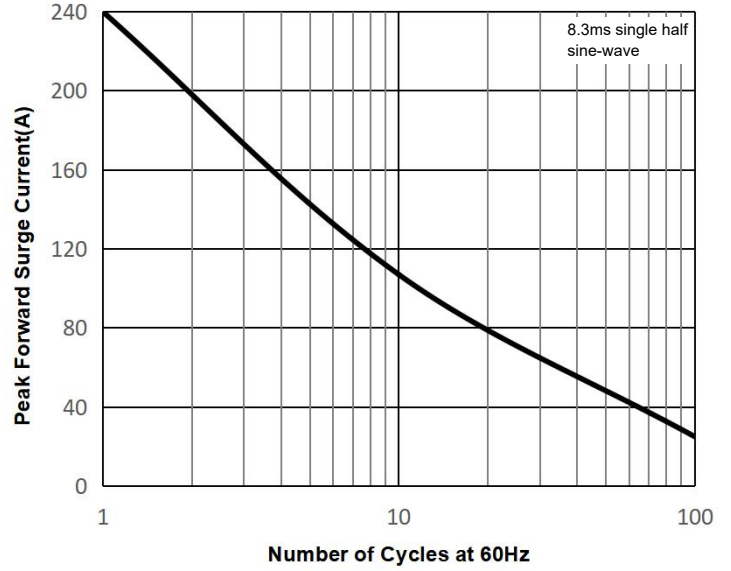


FIG.3: Typical Forward Characteristics

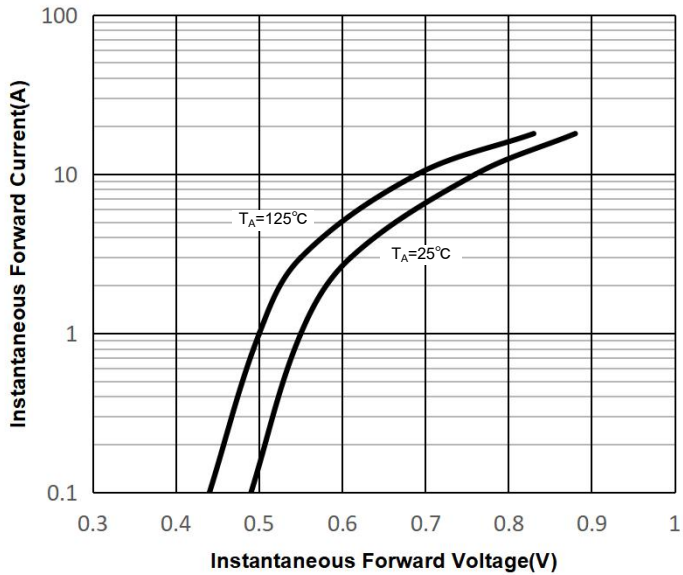
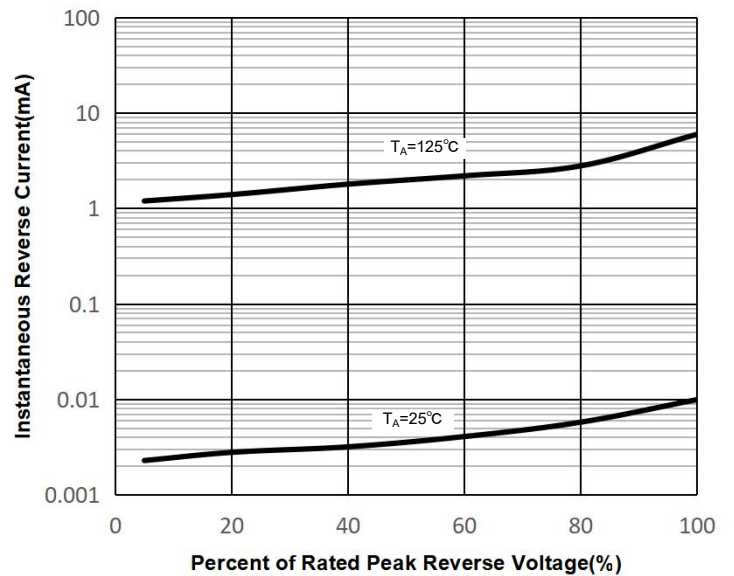
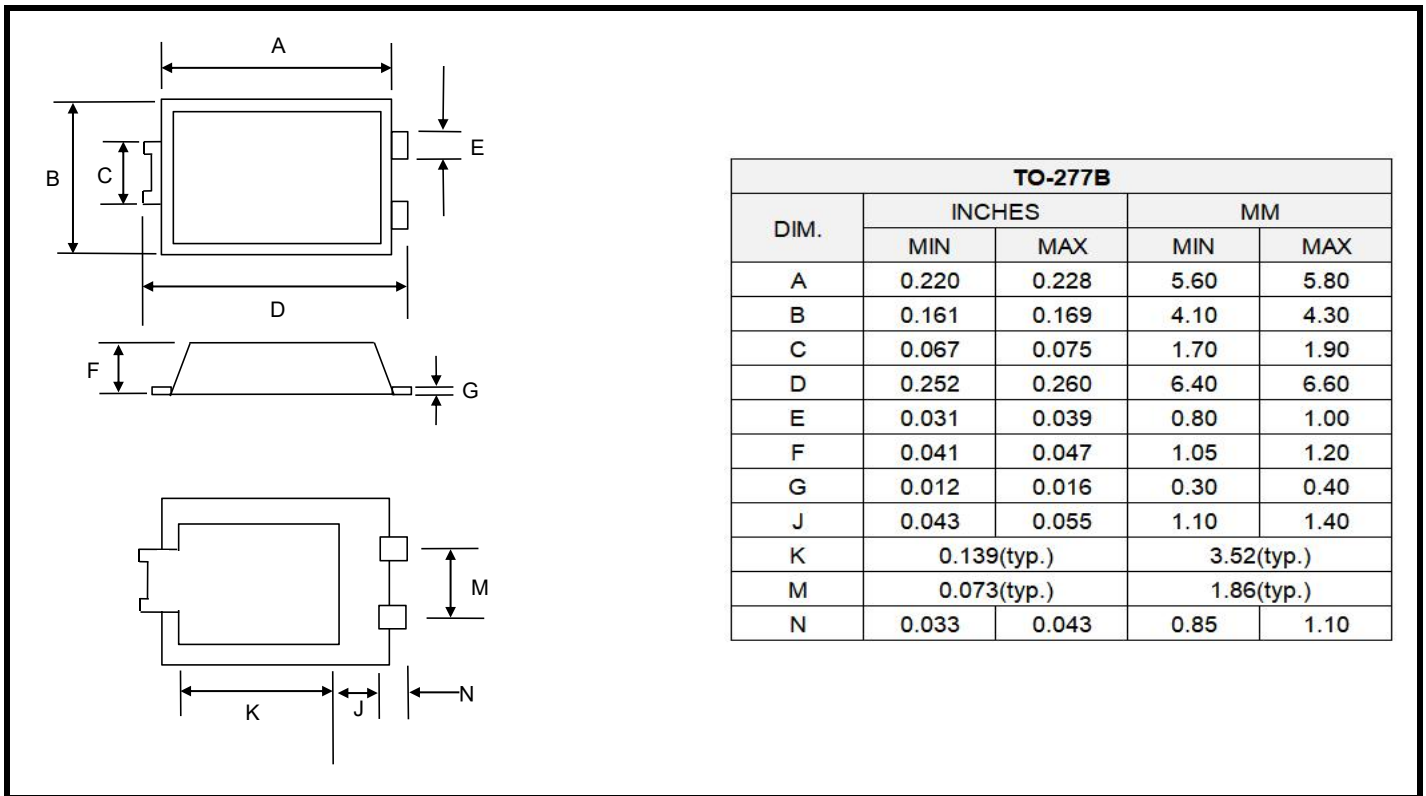


FIG.4: Typical Reverse Characteristics



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PACKAGE OUTLINE DIMENSIONS



PACKING INFORMATION

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