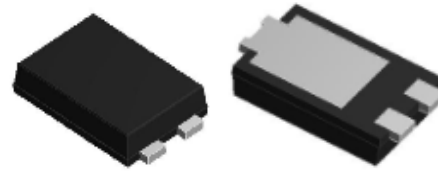


5A, 400V Fast Recovery Epitaxial Rectifiers

FEATURES

- Fast recovery epitaxial diode wafer
- Fast switching for high efficiency
- 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 full wave rectification for SMPS, lighting, adapter, charger, home appliance, office equipment, high frequency and free wheeling diode circuit.

MAXIMUM RATINGS

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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	400	V
Average Forward Rectified Current	$I_{F(AV)}$	5	A
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load)	I_{FSM}	80	A
Operating Junction Temperature Range	T_J	-55 to +175	°C
Storage Temperature Range	T_{STG}	-55 to +175	°C

ELECTRICAL CHARACTERISTICS

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

Parameter	Test Conditions	Symbol	Value		Unit
			Typ.	Max.	
Forward Voltage@ $I_F=1\text{A}$	$T_A=25^\circ\text{C}$	V_F	0.9	1.1	V
	$T_A=125^\circ\text{C}$		0.75	0.9	
Forward Voltage@ $I_F=5\text{A}$	$T_A=25^\circ\text{C}$		1.05	1.3	
	$T_A=125^\circ\text{C}$		0.8	1.0	
Reverse Current @ V_{RRM}	$T_A=25^\circ\text{C}$	I_R	0.02	1	μA
	$T_A=125^\circ\text{C}$		35	100	
Reverse Recovery Time	$I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{RR}=0.25\text{A}$	T_{RR}	35		nS

5A, 400V Fast Recovery Epitaxial Rectifiers

RATINGS AND CHARACTERISTIC CURVES

T_A=25°C unless otherwise noted

FIG.1: Forward Output Current Derating Curve

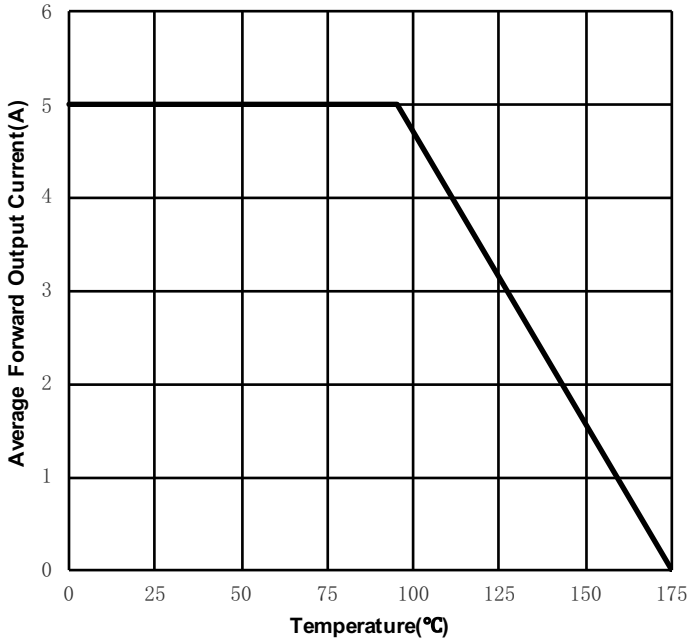


FIG.2: Maximum Non-Repetitive Peak Forward Surge Current

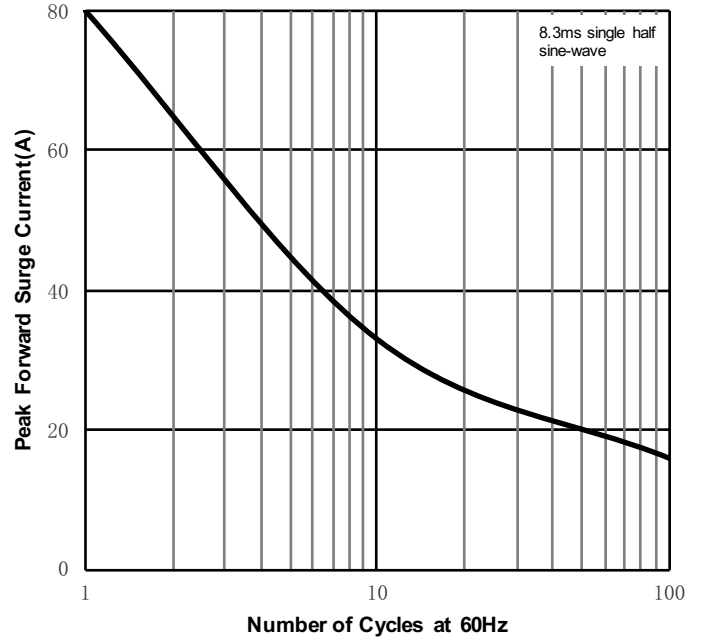


FIG.3: Typical Forward Characteristics

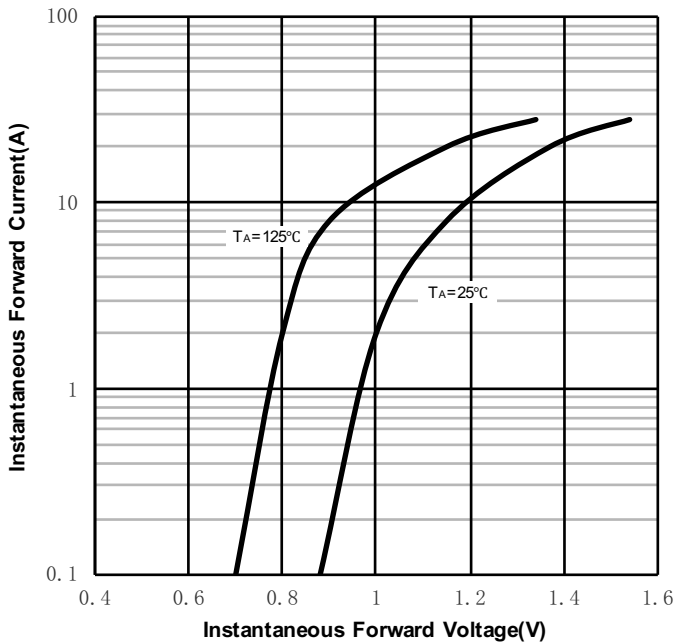
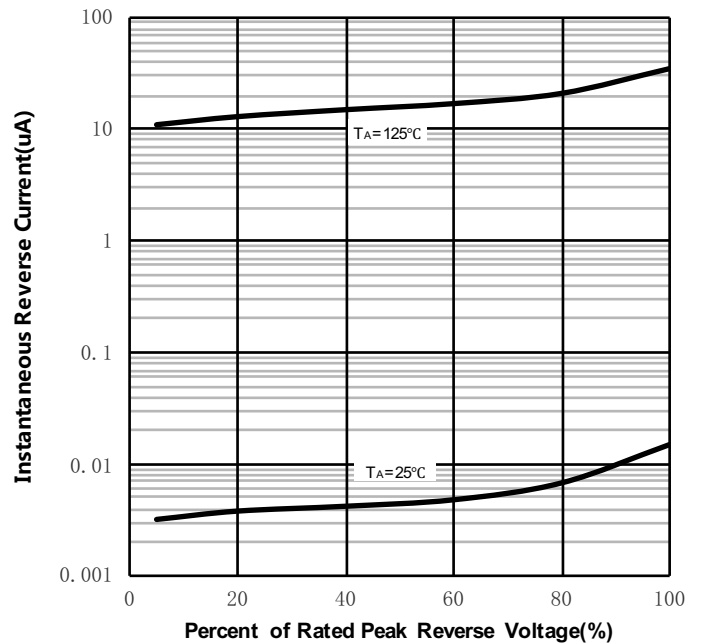
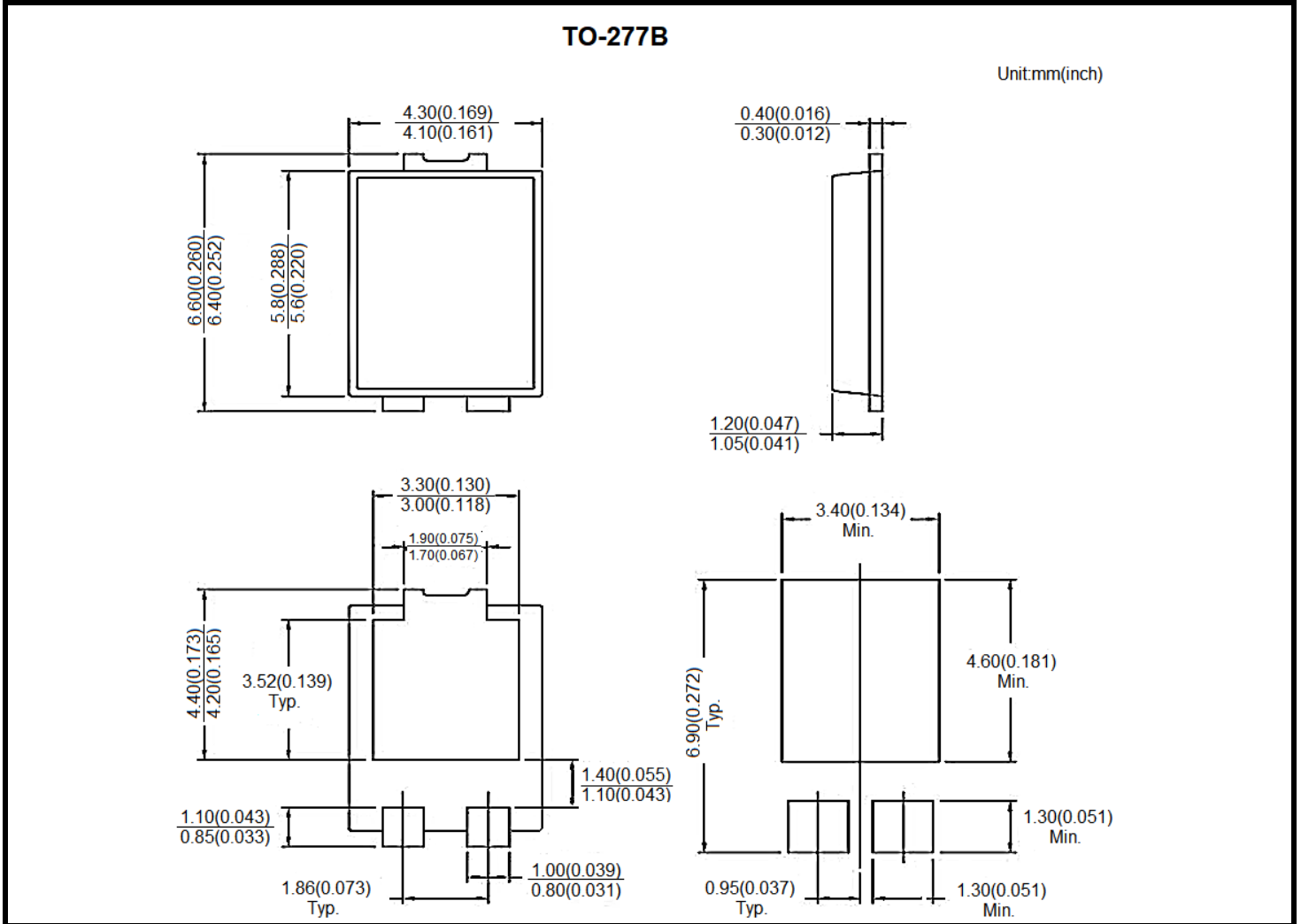


FIG.4: Typical Reverse Characteristics



5A, 400V Fast Recovery Epitaxial Rectifiers

PACKAGE OUTLINE DIMENSIONS



PACKING INFORMATION

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