ANSAS

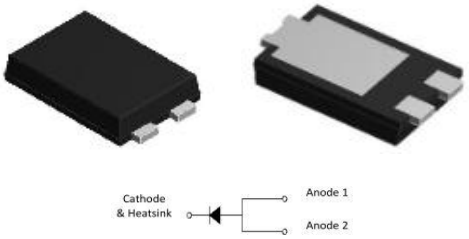
ST20100L

20A, 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℃/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 low voltage high frequency inverters,freewheeling, DC/DC converters, and polarity protection applications.

MAXIMUM RATINGS

T_A=25℃ unless otherwise noted

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Average Forward Rectified Current	$I_{F(AV)}$	20	A
Peak forward surge current (8.3 ms single half sine-wave superimposed on rated load)	I_{FSM}	320	A
Operating Junction Temperature Range	T_J	-55 to +150	℃
Storage Temperature Range	T_{STG}	-55 to +150	℃

ELECTRICAL CHARACTERISTICS

T_A=25℃ unless otherwise noted

Parameter	Test Conditions	Symbol	Value		Unit
			Typ.	Max.	
Forward Voltage@I_F=3A	T_A=25℃	V_F	0.41	0.44	V
	T_A=125℃		0.37	0.4	
Forward Voltage@I_F=20A	T_A=25℃		0.61	0.64	
	T_A=125℃		0.55	0.58	
Reverse Current @ V_{RRM}	T_A=25℃	I_R	50	120	uA
	T_A=125℃		35	100	mA
Typical Thermal Resistance		$R_{\theta JA}$	100		℃/W

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RATINGS AND CHARACTERISTIC CURVES

T_A=25℃ unless otherwise noted

FIG.1: Forward Output Current Derating Curve

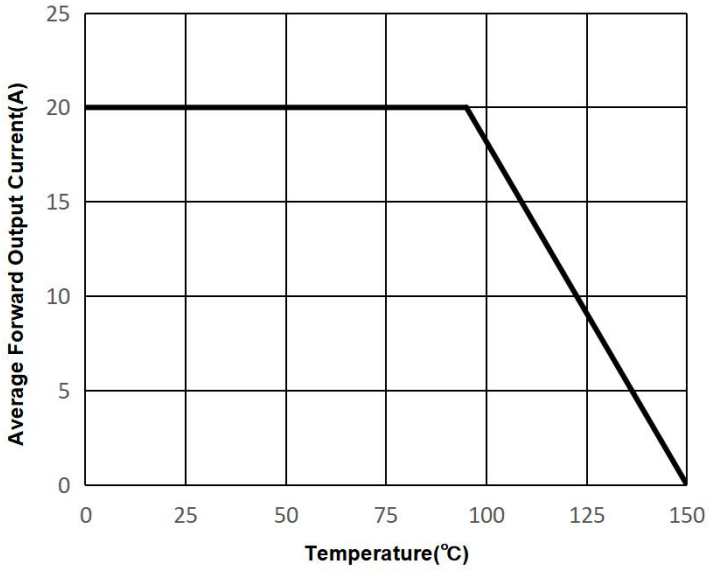


FIG.2: Maximum Non-Repetitive Peak Forward Surge Current

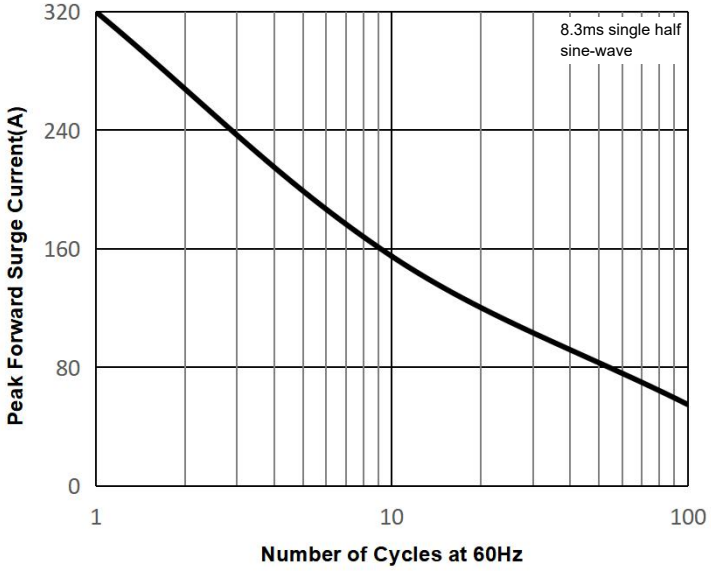


FIG.3: Typical Forward Characteristics

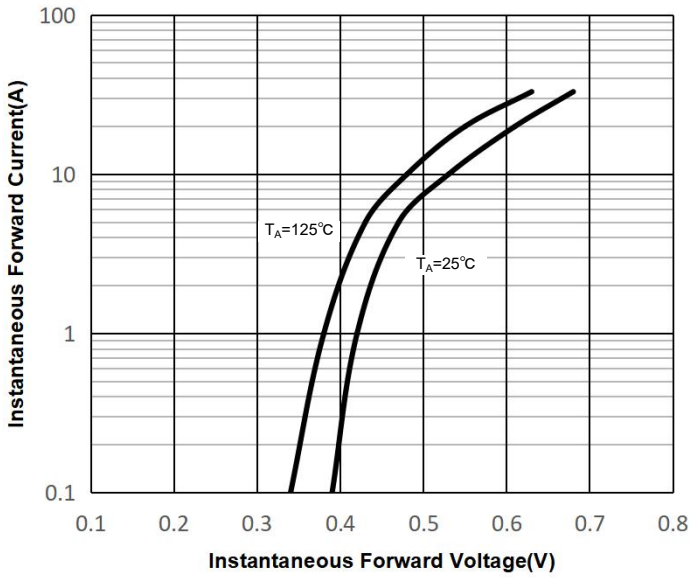
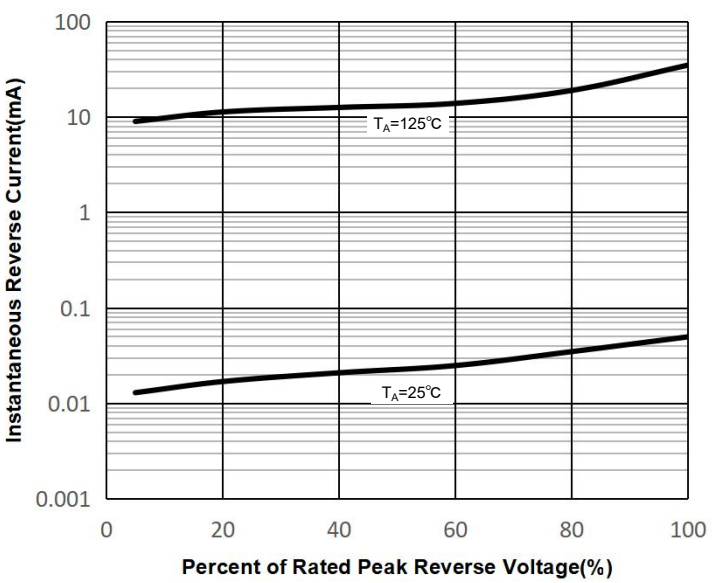


FIG.4: Typical Reverse Characteristics



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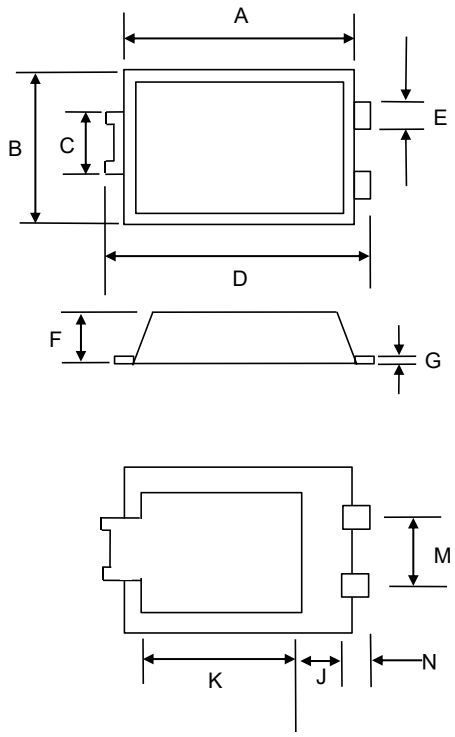
PACKAGE OUTLINE DIMENSIONS



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