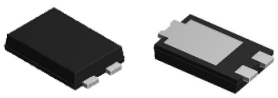
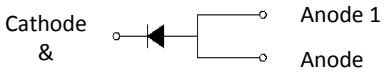
20A Schottky Recetifier



TO-277B



Features

- Low forward voltage drop,low power losses
- Low leakage current
- High efficiency
- Very low profile - typical height of 1.1 mm
- Heatsink design
- Halogen-free according to IEC 61249-2-21 definition
- Moisture sensitivity: level 1, per J-STD-020
- High temperature soldering guaranteed: 260℃/10 seconds

Typical Applications

For low voltage high frequency inverters, DC/DC converters and polarity protection and polarity protection application.

Mechanical Data

Case:T0-277B
Molding compound meets UL 94 V-0 flammability
Terminals: Matte tin plated leads, solderable per J-STD-002 and JESD 22-B102

Ordering Information

Part Number	Qualification	Case	Packaging
ST20120L	Commercial	To-277B	5000/Tape & Reel

Maximum Ratings (TA = 25 °C unless otherwise noted)

Parameter	Symbol	ST20120L	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	120	V
Maximum RMS voltage	V_{RMS}	100	V
Maximum DC blocking voltage	V_{DC}	120	V
Maximum average forward rectified current	$I_{F(AV)}$ 1)	20	A
	$I_{F(AV)}$ 2)	10	
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	320	A
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150	°C

Notes:

1) The thermal resistance from junction to ambient,case or mount,mounted on P.C.B with 30×30mm copper pads,2 OZ,FR4 PCB.

2):Mounted on recommended copper pad area,free air.

Electrical Characteristics (TA = 25 °C unless otherwise noted)

Parameter	Test Conditions		Symbol	Max	Unit
Maximum instantaneous forward voltage	I_F=20A	T_A=25℃		0.80	Volts
Maximum DC reverse current at rated DC blocking voltage	Rated VR	T_A=25℃	I_R	0.08	mA
		T_A=100℃		10	mA
Typical thermal resistance [1]	juntion to ambient		$R_{\theta JA}$	100	℃/W

Ratings and Characteristics Curves

Fig. 1 - Forward Current Derating Curve

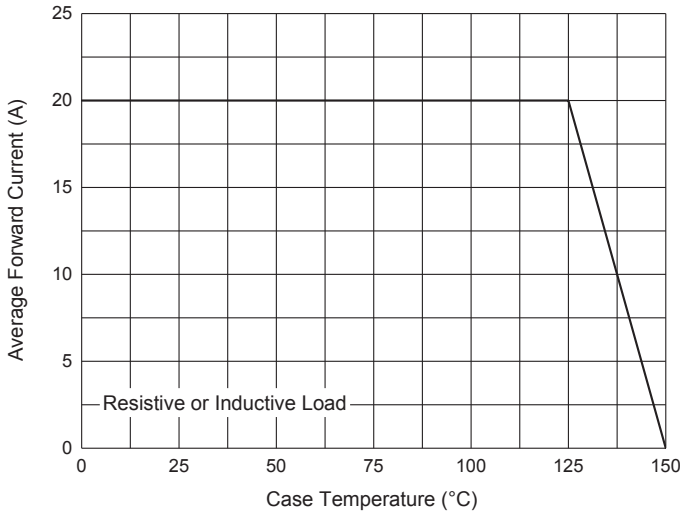


Fig. 2 - Typical Junction Capacitance

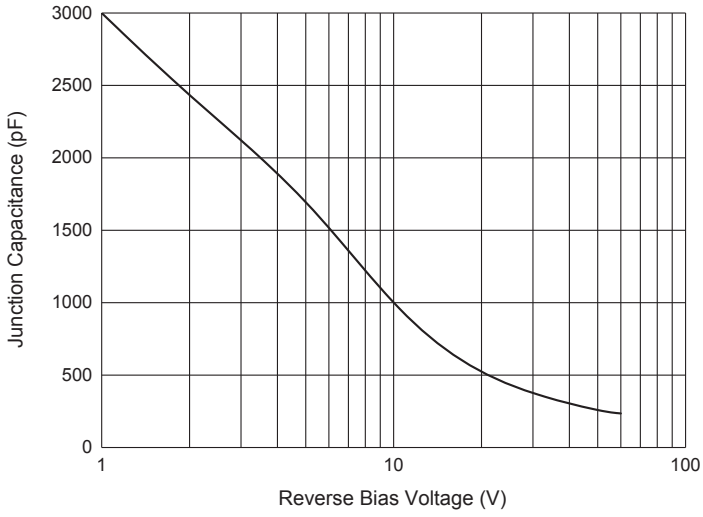


Fig. 3 - Typical Instantaneous Forward Characteristics

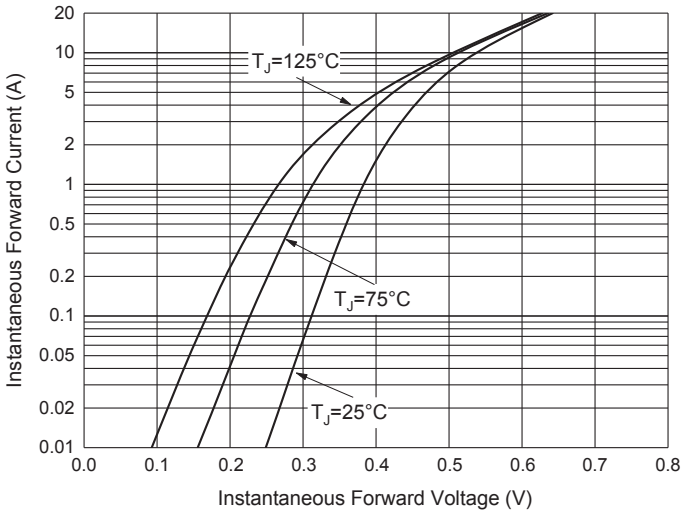
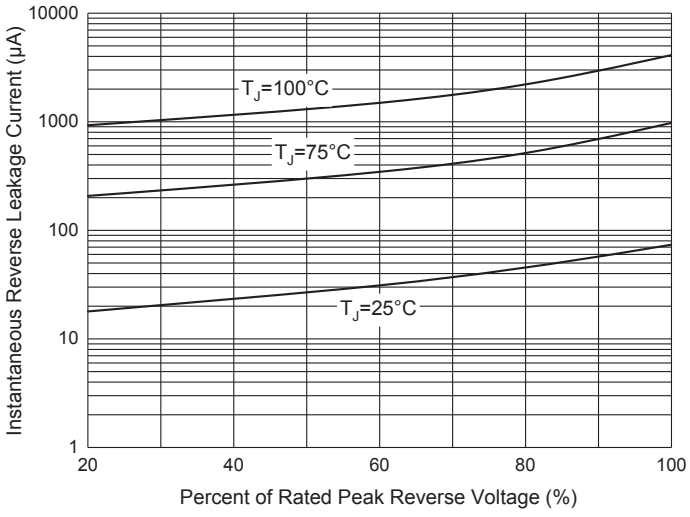


Fig. 4 - Typical Reverse Leakage Characteristics



Package Outline Dimensions in millimeters (inches)