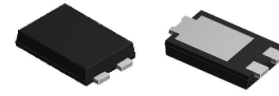


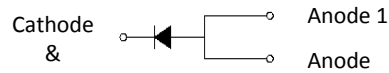
## 10A Surface Mount Schottky Rectifier

### 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°C/10 seconds



TO-277B



### Typical Applications

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

### Mechanical Data

Case: TO-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
SB10150	Commercial	To-277B	5000/Tape & Reel

<b>Maximum Ratings</b> (TA = 25 °C unless otherwise noted)			
Parameter	Symbol	SB10150	Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	150	V
Maximum RMS voltage	V <sub>RMS</sub>	105	V
Maximum DC blocking voltage	V <sub>DC</sub>	150	V
Maximum average forward rectified current	I <sub>F(AV)</sub> <sup>1)</sup>	10	A
	I <sub>F(AV)</sub> <sup>2)</sup>	5	
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	200	A
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +175	°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.

<b>Electrical Characteristics</b> (TA = 25 °C unless otherwise noted)					
Parameter	Test Conditions		Symbol	Max	Unit
Maximum instantaneous forward voltage	$I_F=10A$	$T_A=25^\circ C$		0.87	Volts
Maximum DC reverse current at rated DC blocking voltage	Rated VR	$T_A=25^\circ C$	$I_R$	0.2	mA
		$T_A=100^\circ C$		10	mA
Typical thermal resistance <sup>1)</sup>	juntion to ambient		$R_{\theta JA}$	110	°C/W
	juntion to case		$R_{\theta JC}$	65	
	juntion to mount		$R_{\theta JM}$	40	

## Ratings and Characteristics Curves

FIG.1 FORWARD CURRENT DERATING CURVE

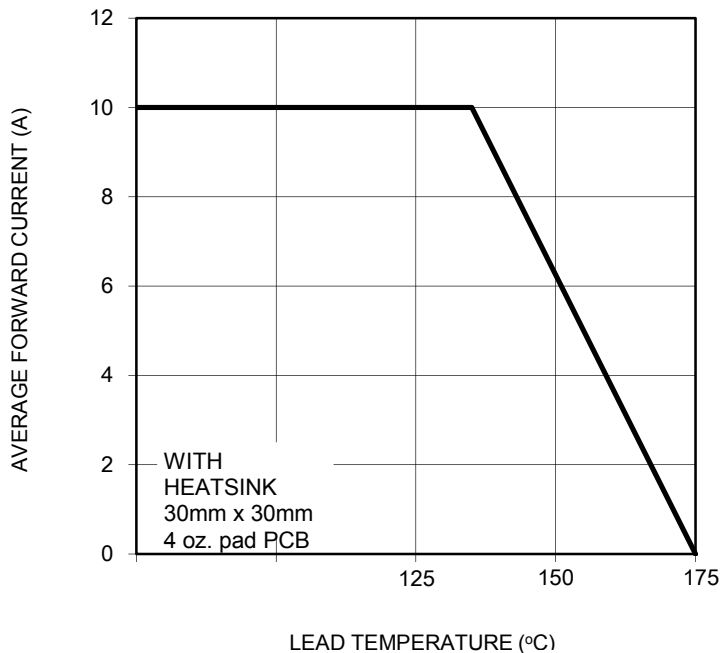


FIG.2 TYPICAL FORWARD CHARACTERISTICS

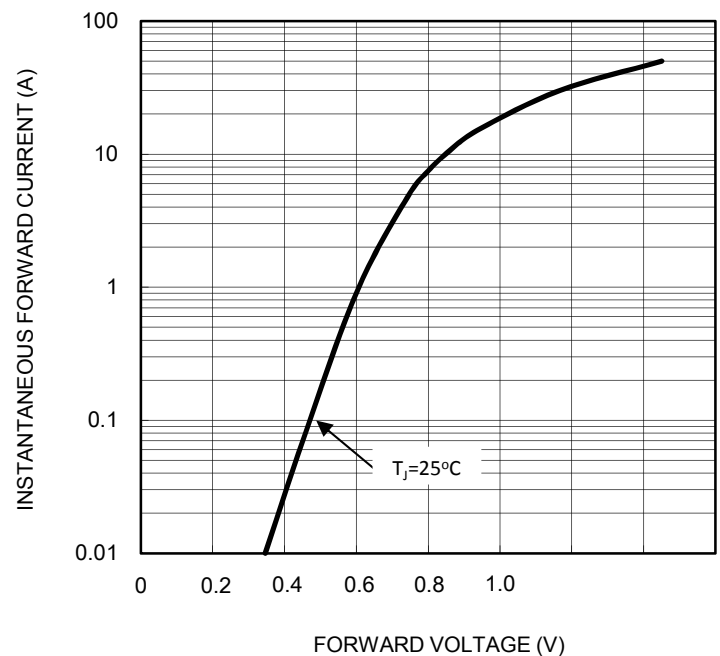
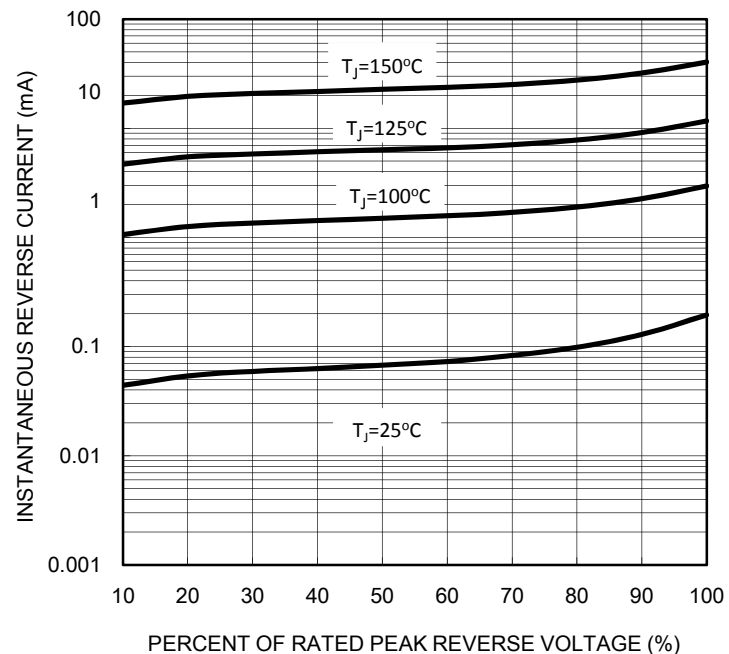


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



FIG.4 TYPICAL REVERSE CHARACTERISTICS





### Package Outline Dimensions in millimeters (inches)

