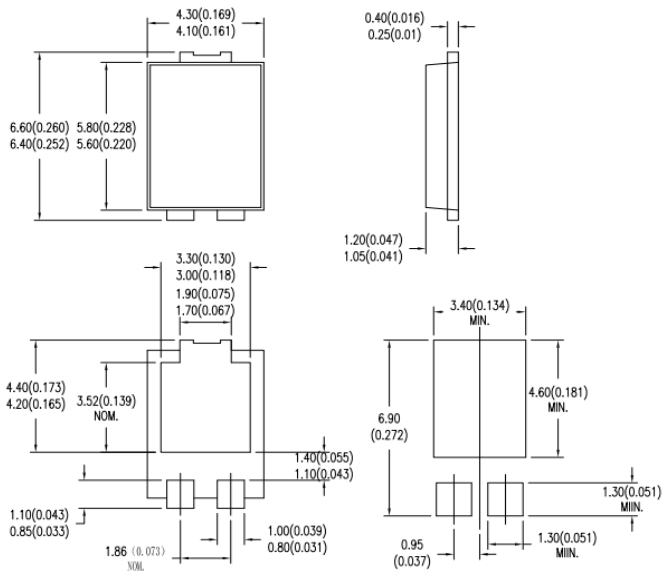
10A 150V Surface Mount Schottky Barrier Diode

Features

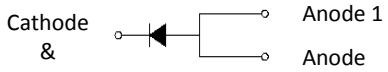
- Low forward voltage drop,low power losses
- Low leakage current
- High efficiency
- Very low profile - typical height of 1.1 mm
- Heatsink design
- Compliant with RoHS standards, halogen-free
- High temperature soldering guaranteed: 260℃/10 seconds

TO-277B



Mechanical Data

- Case: TO-277B
- Polarity: Indicated by cathode band
- Epoxy: UL 94V-0 rate flame retardant
- Mounting Position : Any



Ordering Information

Part Number	Qualification	Case	Packaging
SB10150	Commercial	TO-277B	5000/Tape & Reel

Maximum Ratings (T_A=25℃ unless otherwise noted)

Parameter	Symbol	SB10150	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	150	V
Maximum RMS voltage	V_{RMS}	105	V
Maximum DC blocking voltage	V_{DC}	150	V
Maximum average forward rectified current	$I_{F(AV)}$ [1)]	10	A
	$I_{F(AV)}$ [2)]	5	
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	200	A
Operating junction and storage temperature range	T_J, T_{STG}	-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.

Electrical Characteristics (T_A=25℃ unless otherwise noted)

Parameter	Test Conditions		Symbol	Max	Unit
Maximum instantaneous forward voltage	I_F=10A	T_A=25℃		0.87	Volts
Maximum DC reverse current at rated DC blocking voltage	Rated VR	T_A=25℃	I_R	0.2	mA
		T_A=100℃		10	mA
Typical thermal resistance [1)]	juntion to ambient		$R_{\theta JA}$	110	℃/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

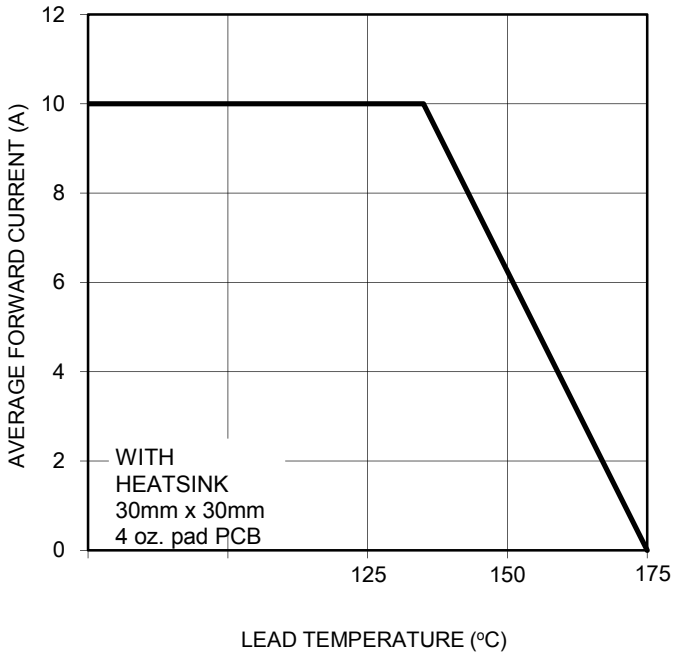


FIG.2 TYPICAL FORWARD CHARACTERISTICS

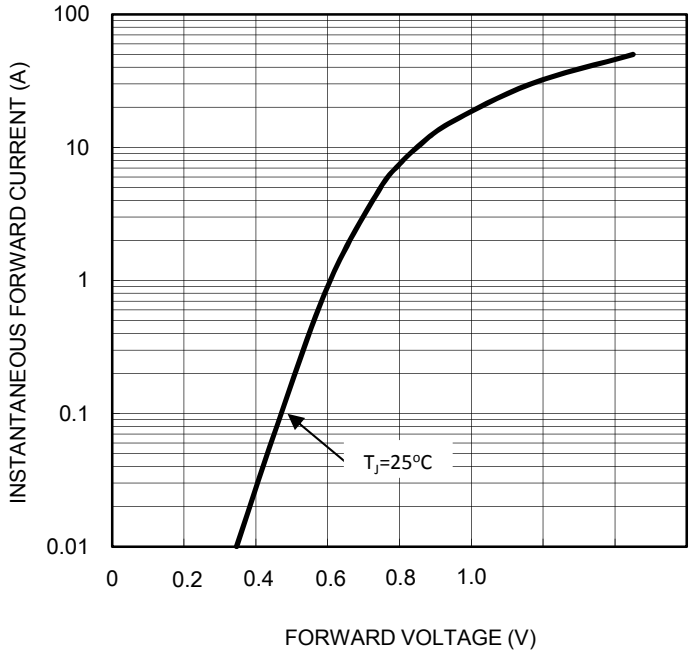


FIG. 3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

FIG.4 TYPICAL REVERSE CHARACTERISTICS