



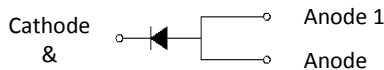
10A 150V Surface Mount Schottky Barrier Diode

Features

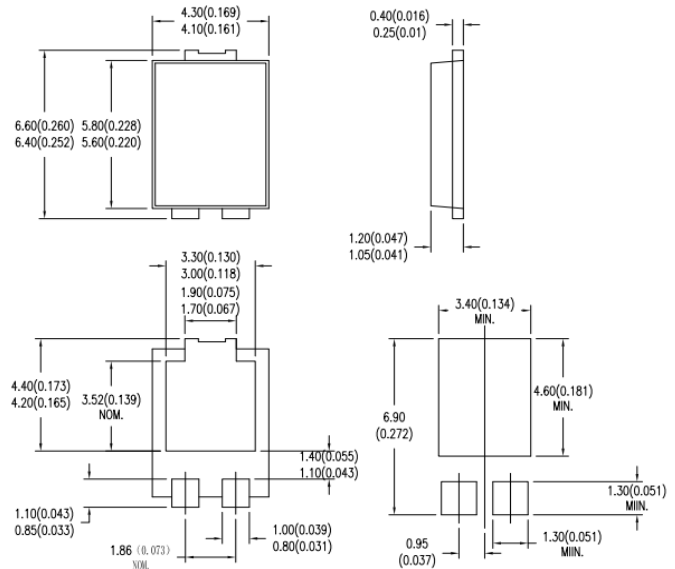
- Low forward voltage drop, low power losses
- Low leakage current
- High efficiency
- Very low profile - typical height of 1.1 mm
- Heatsink design
- Compliant with RoHS standards, halogen-free
- High temperature soldering guaranteed:
260°C/10 seconds

Mechanical Data

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



TO-277B



Ordering Information

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

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

Parameter	Symbol	SB10150-A	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}	180	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 ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Test Conditions		Symbol	Max	Unit
Maximum instantaneous forward voltage	$I_F=10\text{A}$	$T_A=25^{\circ}\text{C}$		0.90	Volts
Maximum DC reverse current at rated DC blocking voltage	Rated VR	$T_A=25^{\circ}\text{C}$	I_R	0.2	mA
		$T_A=100^{\circ}\text{C}$		10	mA
Typical thermal resistance ¹⁾	junction to ambient		$R_{\theta JA}$	110	$^{\circ}\text{C/W}$
	junction to case		$R_{\theta JC}$	65	
	junction to mount		$R_{\theta JM}$	40	

Ratings and Characteristics Curves

FIG.1 FORWARD CURRENT DERATING CURVE

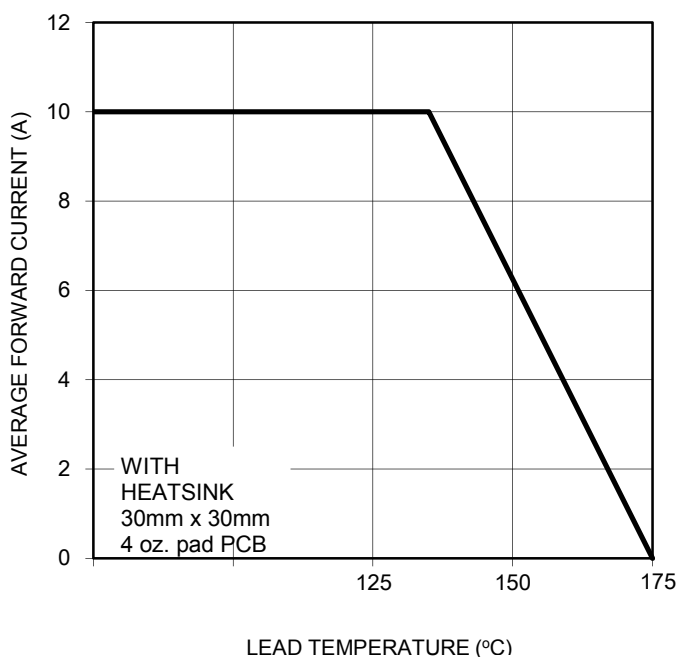


FIG.2 TYPICAL FORWARD CHARACTERISTICS

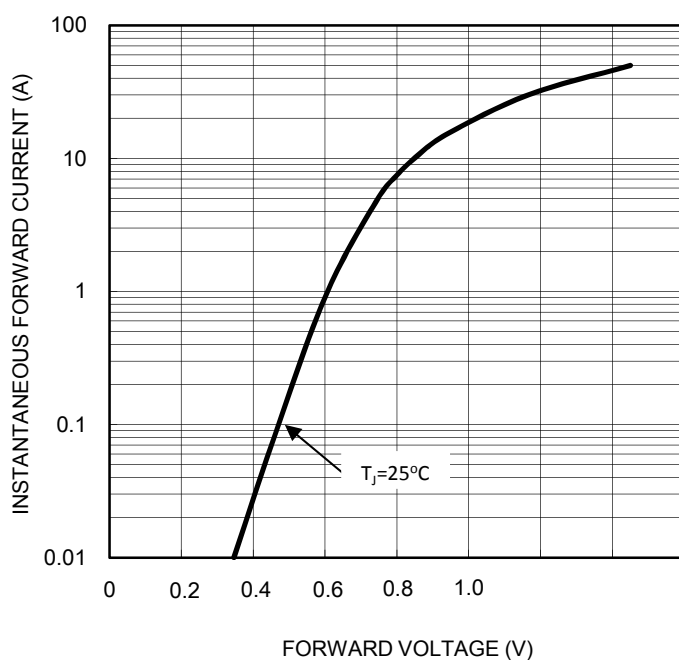


FIG. 3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

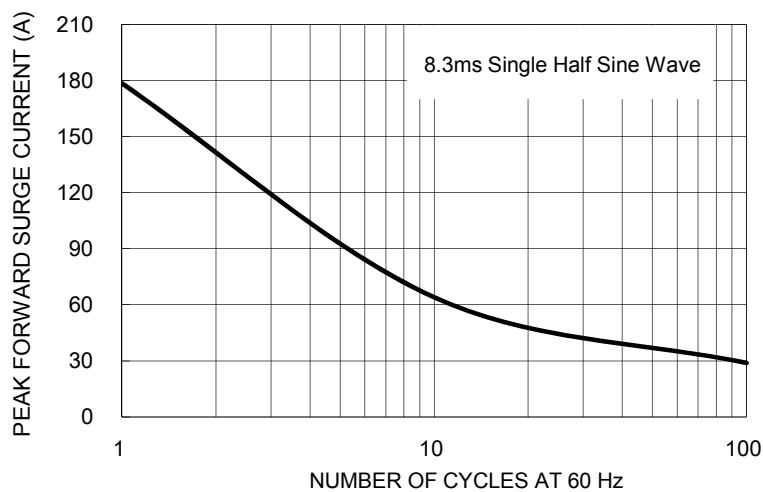


FIG.4 TYPICAL REVERSE CHARACTERISTICS

