

10A 300V Surface Mount Schottky Barrier Diode

Features

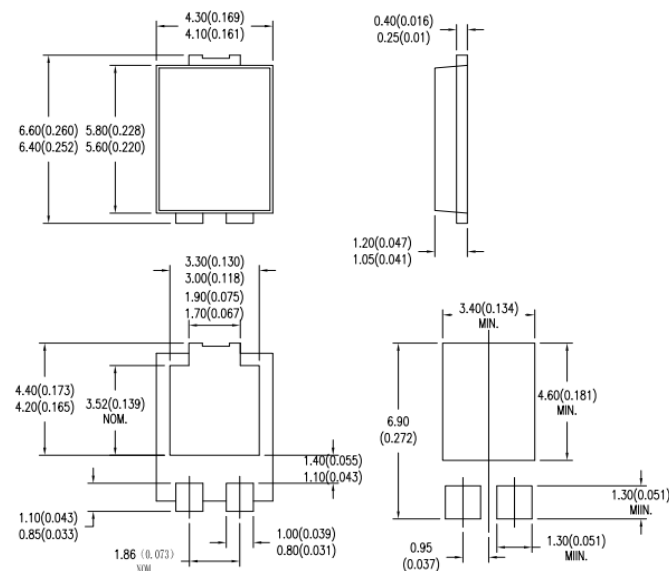
- Excellent high temperature stability
- Low forward voltage
- Low power loss/ high efficiency
- Ideal for automated placement
- High forward surge capability
- Compliant with RoHS standards, halogen-free

Mechanical Data

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

Cathode & Heatsink  Anode 1
Anode 2

TO-277B



Maximum Ratings and Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter			Symbol	SP10300L	Unit
Maximum repetitive peak reverse voltage			V _{RRM}	300	V
Maximum average forward rectified current			I _{F(AV)}	10	A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load per diode			I _{FSM}	120	A
Maximum instantaneous forward voltage per diode (Note 1)	I _F = 10A	T _J = 25°C	V _F	0.98	V
	I _F = 10A	T _J = 125°C		0.92	
Maximum instantaneous reverse current per diode at rated reverse voltage		T _J = 25°C	I _R	2	μA
		T _J = 125°C		5	mA
Typical thermal resistance			R _{θJL}	3.0	°C/W
Operating temperature range			T _J	- 55 to +175	°C
Storage temperature range			T _{STG}	- 55 to +175	°C

Note:

1. Pulse Test with Pulse Width=300 μs , 1% Duty Cycle



Ratings and Characteristic Curves ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

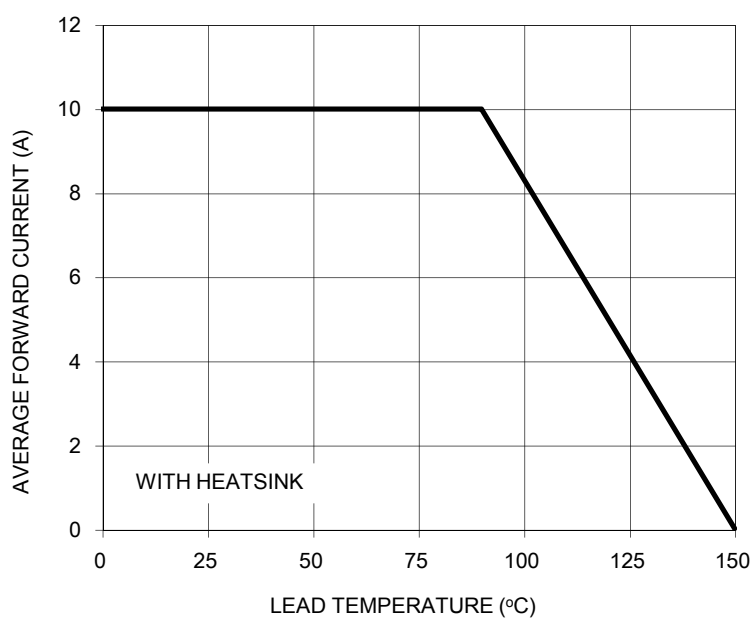


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

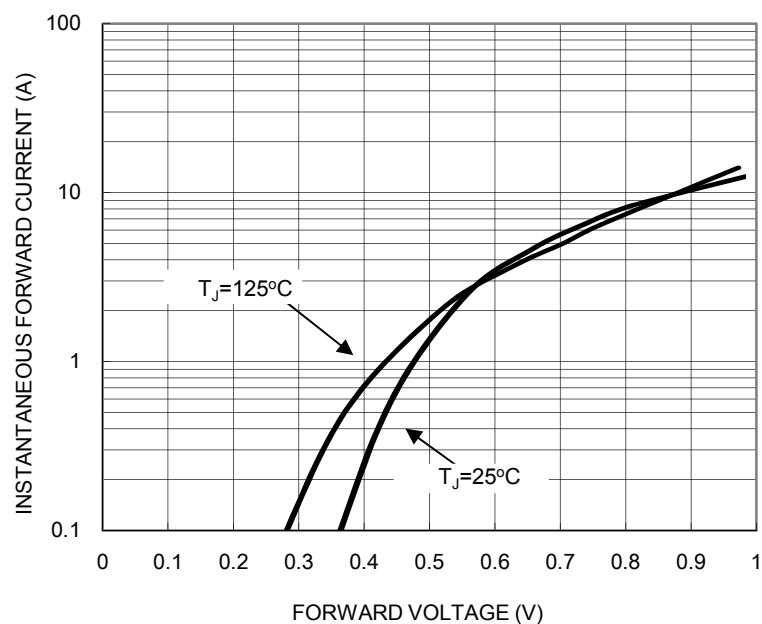


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



FIG. 4 TYPICAL REVERSE CHARACTERISTICS

