

10A 45V Surface Mount Schottky Barrier Diode

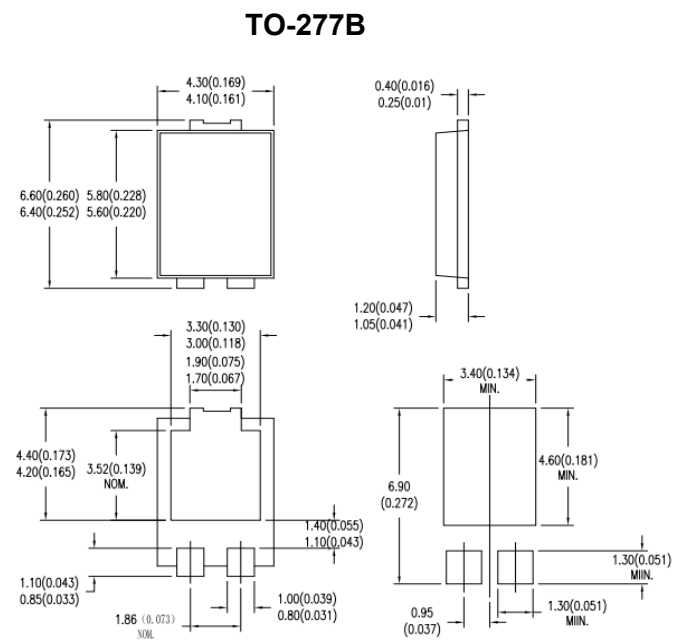
Features

- 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



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

Parameter			Symbol	SP1045L-A	Unit
Maximum repetitive peak reverse voltage			V_{RRM}	45	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}	250	A
Maximum instantaneous forward voltage per diode (Note 1)	$I_F = 10A$	$T_J = 25^{\circ}C$	V_F	0.45	V
Maximum instantaneous reverse current per diode at rated reverse voltage		$T_J = 25^{\circ}C$	I_R	150	μA
		$T_J = 125^{\circ}C$		15	mA
Typical thermal resistance			$R_{\theta JL}$	11	$^{\circ}C/W$
Operating temperature range			T_J	- 55 to +150	$^{\circ}C$
Storage temperature range			T_{STG}	- 55 to +150	$^{\circ}C$

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

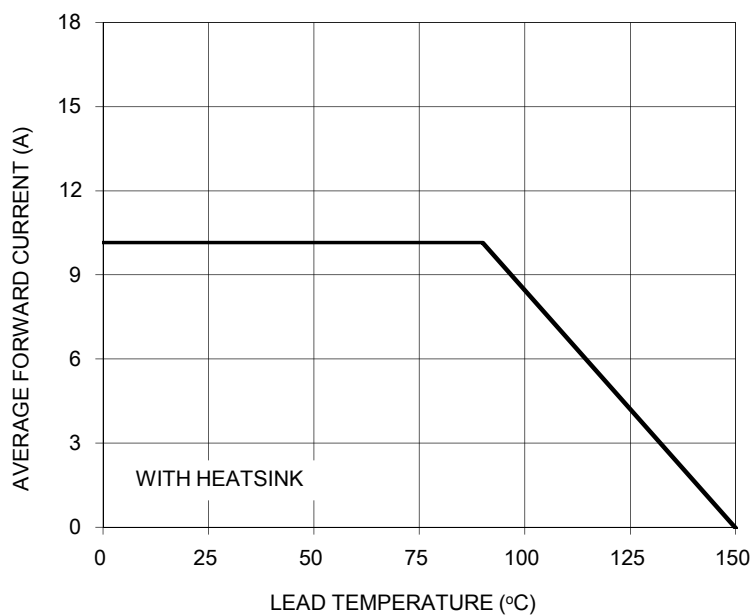


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

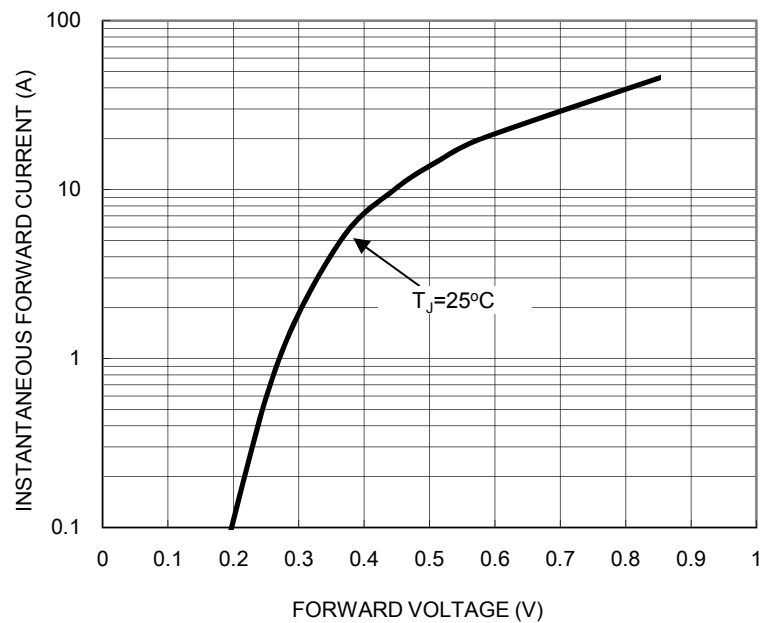


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

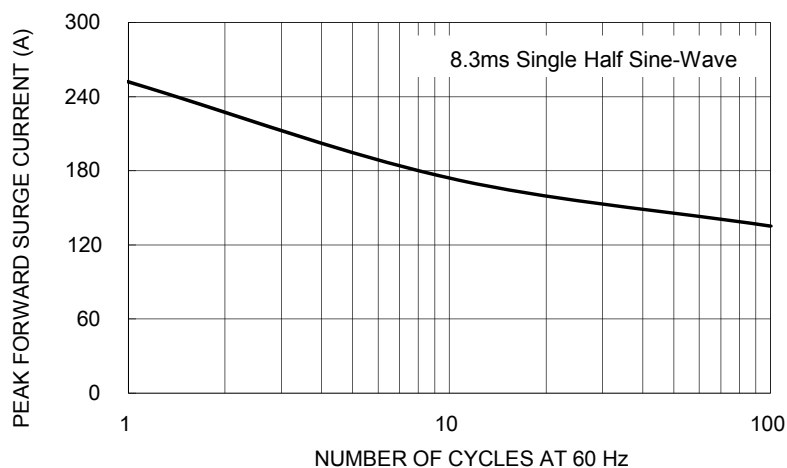


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

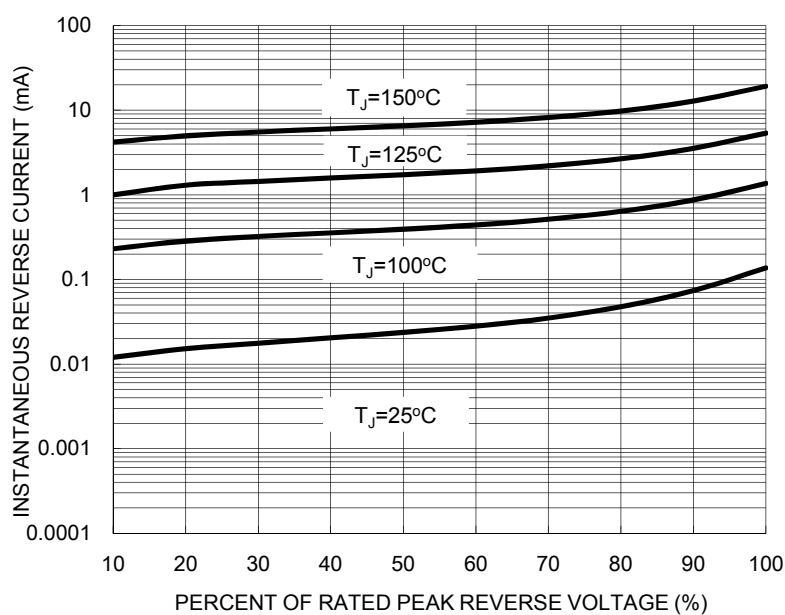


FIG. 5 TYPICAL JUNCTION CAPACITANCE

