

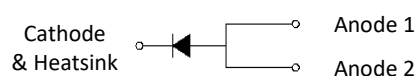
10A 45V Surface Mount Schottky Barrier Diode

Features

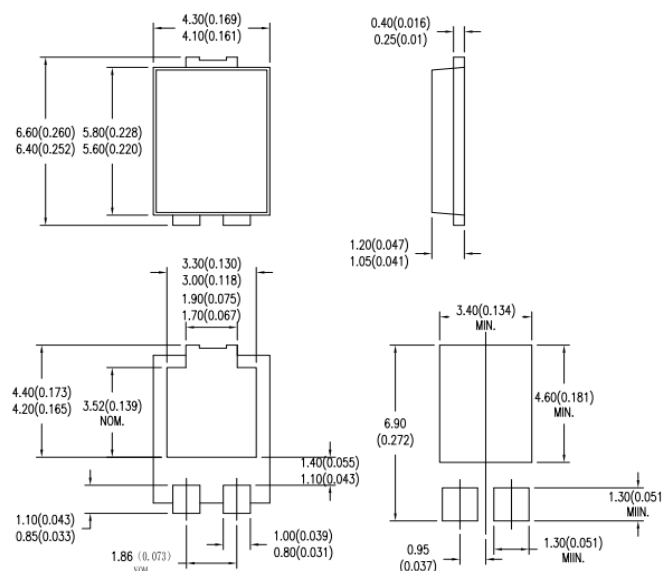
- Excellent high temperature stability
- Low forward voltage
- Low power loss/ high efficiency
- Ideal for automated placement
- High forward surge capability
- AEC-Q101 qualified
- Compliant with RoHS standards, halogen-free

Mechanical Data

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



TO-277B



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

Parameter			Symbol	SP1045L-AQ	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°C	V _F	0.45	V
Maximum instantaneous reverse current per diode at rated reverse voltage		T _J = 25°C	I _R	150	μA
		T _J = 125°C		15	mA
Typical thermal resistance			R _{θJL}	11	°C/W
Operating temperature range			T _J	- 55 to +150	°C
Storage temperature range			T _{STG}	- 55 to +150	°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

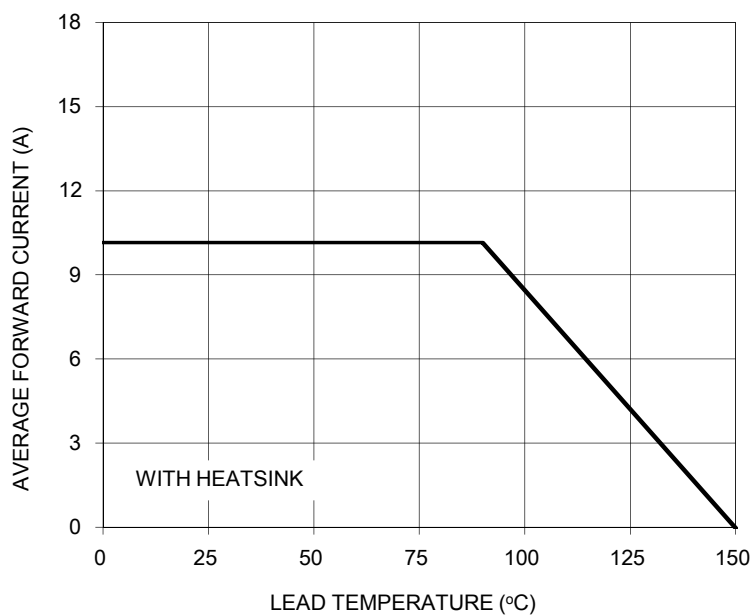


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

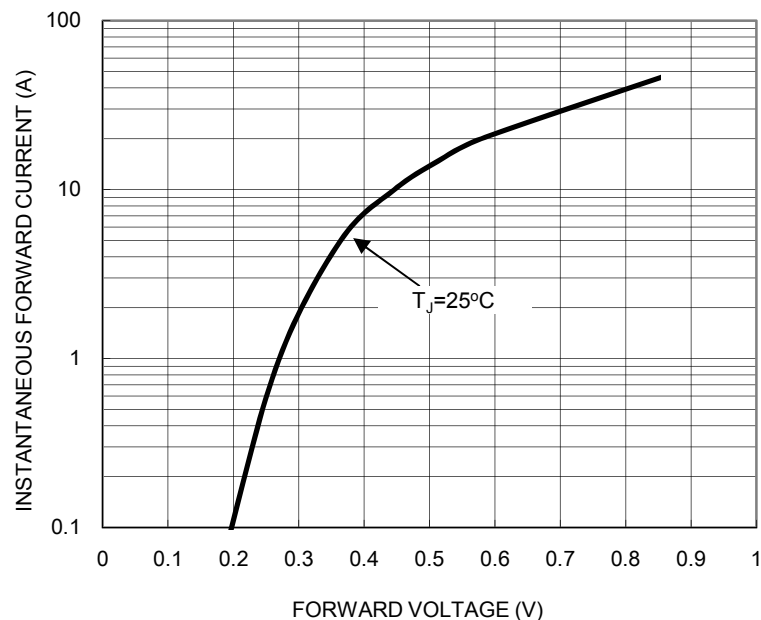


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

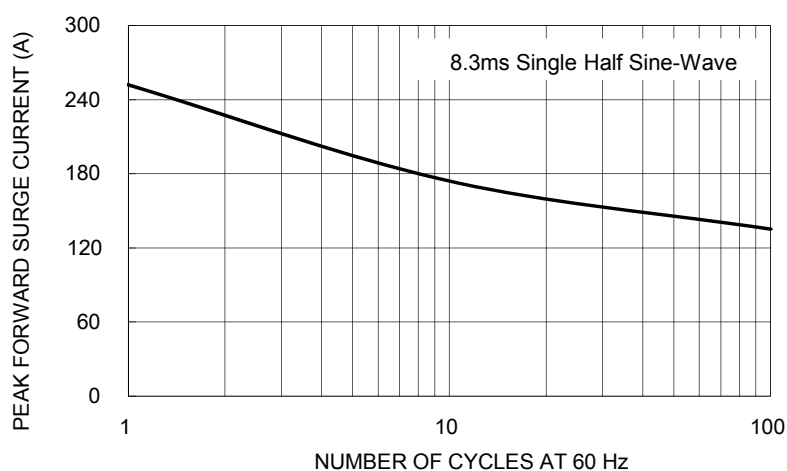


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

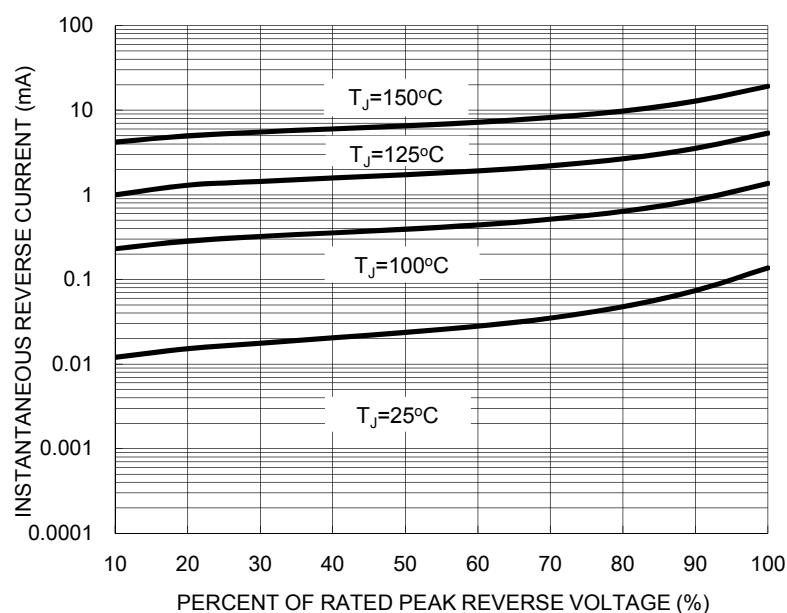


FIG. 5 TYPICAL JUNCTION CAPACITANCE

