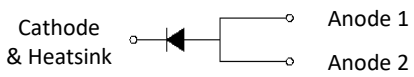
20A, 45V Schottky Rectifiers

FEATURES

- Excellent high temperature stability
- Low forward voltage
- Low power loss/ high efficiency
- High forward surge capability
- Ideal for automated placement
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



TO-277B



TYPICAL APPLICATIONS

Trench Schottky barrier rectifier is designed for high frequency miniature switched mode power supplies such as adapters, lighting and on-board DC/DC converters.

MECHANICAL DATA

Case: TO-277B

Molding compound meets UL 94 V-0 flammability rating

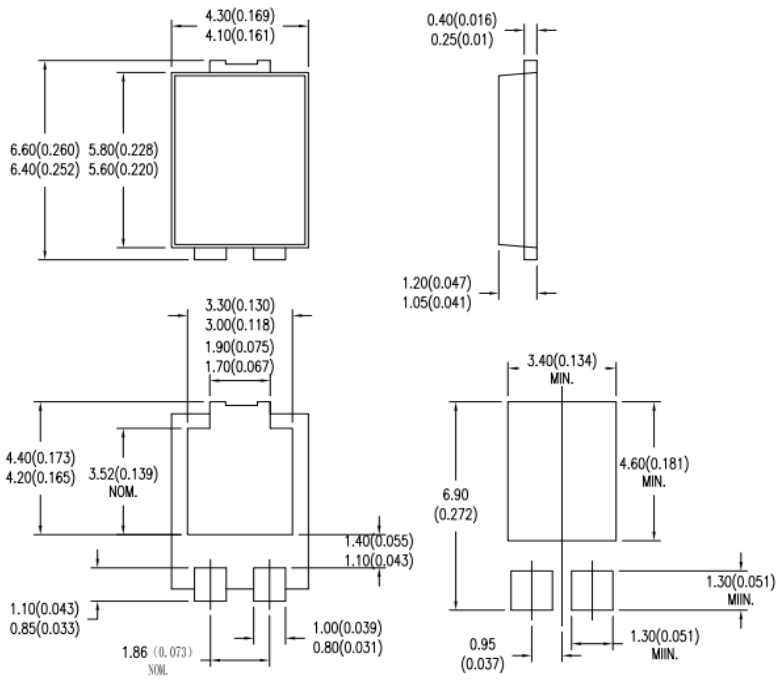
Moisture sensitivity level: level 1, per J-STD-020

Terminal: Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 2 whisker test

Polarity: Indicated by cathode band

Weight: 0.095g (approximately)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)					
PARAMETER			SYMBOL	SP2045L	UNIT
Maximum repetitive peak reverse voltage			V_{RRM}	45	V
Maximum average forward rectified current			$I_{F(AV)}$	20	A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load per diode			I_{FSM}	300	A
Maximum instantaneous forward voltage per diode (Note 1)	I_F = 20A	T_J = 25°C	V_F	0.55	V
Maximum instantaneous reverse current per diode at rated reverse voltage		T_J = 25°C	I_R	200	μA
		T_J = 125°C		3	mA
Typical thermal resistance			$R_{\theta JL}$	11	°C/W
Operating temperature range			T_J	- 55 to +150	°C
Storage temperature range			T_{STG}	- 55 to +175	°C

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

RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

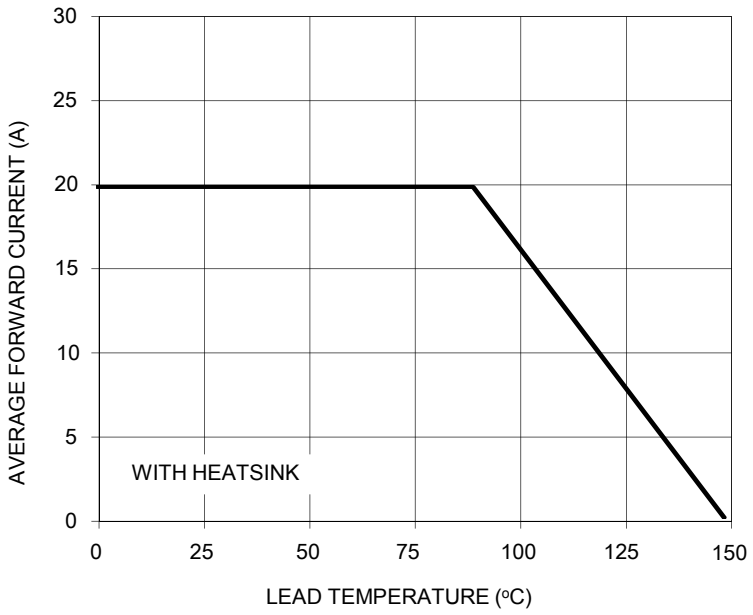


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

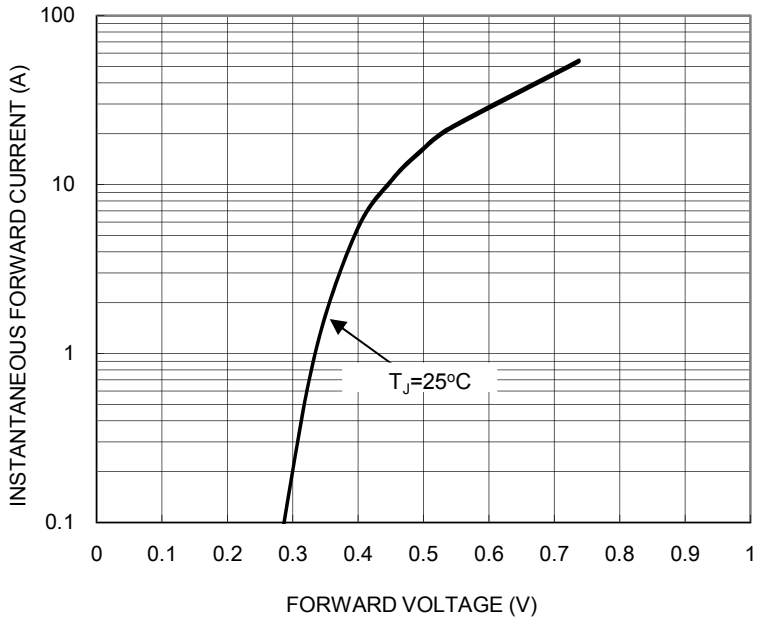


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

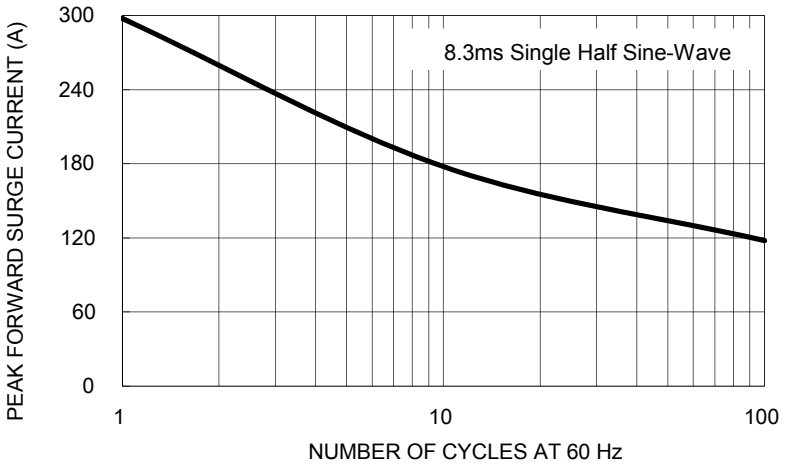


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

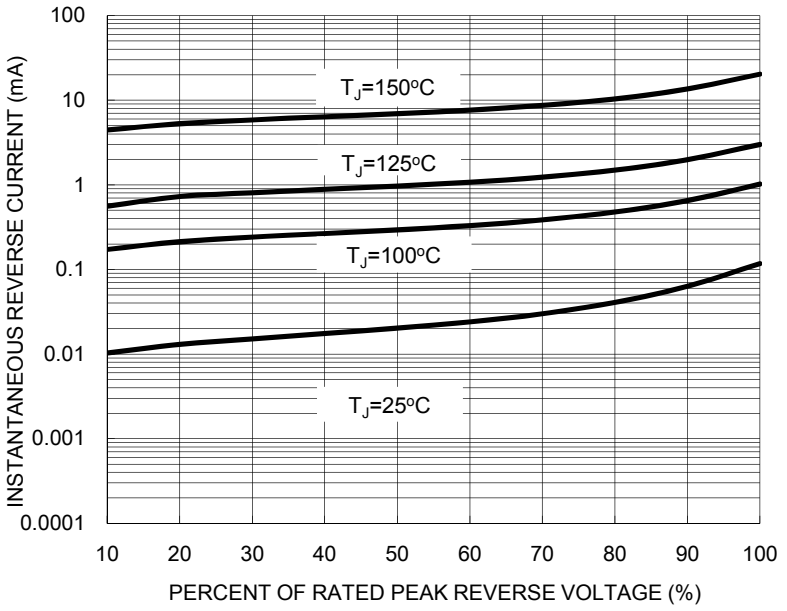


FIG. 5 TYPICAL JUNCTION CAPACITANCE

