

# 15A, 50V 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

## **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

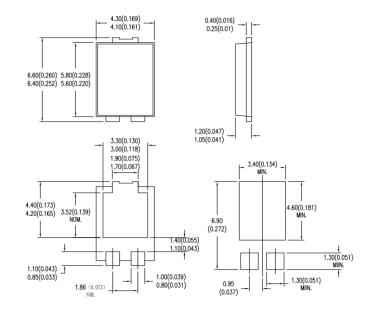
Moisture sensitivity level: level 1, per J-STD-020

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 <sub>A</sub> =25°C unless otherwise noted)					
PARAMETER			SYMBOL	<b>SP1</b> 550 <b>L</b>	UNIT
Maximum repetitive peak reverse voltage			V <sub>RRM</sub>	50	V
Maximum average forward rectified current			I <sub>F(AV)</sub>	15	A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load per diode			I <sub>FSM</sub>	280	A
Maximum instantaneous forward voltage per diode (Note 1)	I <sub>F</sub> = 10A	T <sub>J</sub> = 25°C	V <sub>F</sub>	0.49	V
Maximum instantaneous reverse current per diode at rated reverse voltage		T <sub>J</sub> = 25°C	I <sub>R</sub>	300	μА
Typical thermal resistance			$R_{ heta JL}$	70	°C/W
Operating temperature range			T <sub>J</sub>	- 55 to +150	°C
Storage temperature range			T <sub>STG</sub>	- 55 to +150	°C

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



### **RATINGS AND CHARACTERISTICS CURVES**

(T<sub>A</sub>=25°C unless otherwise noted)

#### FIG.1 FORWARD CURRENT DERATING CURVE

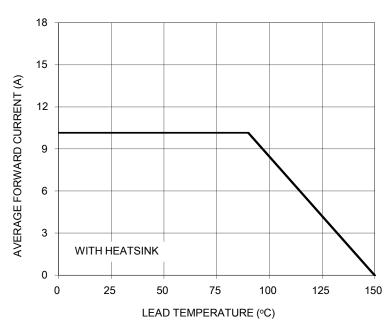


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

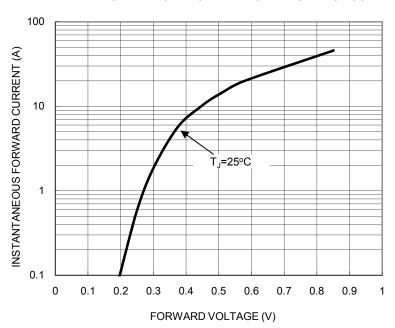


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

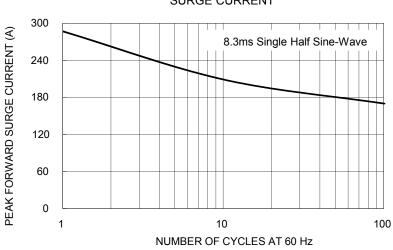


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

