## **SR2545**

# **Surface Mount Schottky Barrier Rectifier**

Reverse Voltage - 45 V Forward Current - 25 A

### **Features**

- Low Power Loss / High Efficiency
- Low Forward Voltage Drop
- · High Current Capability
- Highly Stable Oxide Passicated Junction
- · Guard-Ring for stress Protection
- High Surge Capability

#### **Mechanical Data**

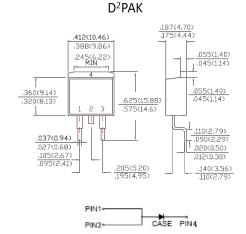
Case: Molded plastic, D<sup>2</sup>PAK

Epoxy: UL 94V-0 rate flame retardant

Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed

Polarity: As marked

Mounting position: Any



Dimensions in inches and (millimeters)

## **Maximum Ratings and Electrical characteristics**

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

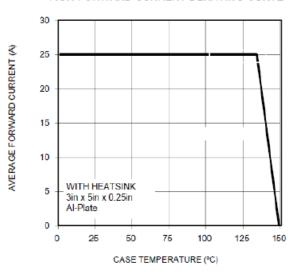
Parameter	Symbols	Value	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	45	V
Maximum RMS voltage	$V_{RMS}$	31.5	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	45	V
Maximum Average Forward Rectified Current at T <sub>a</sub> = 25°C	I <sub>F(AV)</sub>	25	А
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	350	А
Peak Forward Voltage <sup>1)</sup> at I <sub>F</sub> = 25 A	V <sub>F</sub>	0.55	V
Maximum DC Reverse Current $T_a = 25^{\circ}$ C at Rated DC Blocking Voltage $T_a = 100^{\circ}$ C	I <sub>R</sub>	0.05 20	mA
Typical Thermal Resistance <sup>2)</sup>	$R_{ heta JC}$	2	°C/W
Operating Junction Themerature Range	T <sub>op</sub>	- 40 to + 150	°C
Junction Temperature in DC Forward Current Without Reverse Bias.T≤ 1 hour <sup>3)</sup>	TJ	- 40 to + 200	°C
Operating and Storage Temperature Range	T <sub>stg</sub>	- 40 to + 175	°C

<sup>1) 300</sup>us Pulse Width, 2%Duty Cycle.

<sup>&</sup>lt;sup>2)</sup> Thermal Resistance Junction to Case. Without Heatsink.

<sup>&</sup>lt;sup>3)</sup> Meets The Requiements Of IEC 61215 ed. 2 Bypass Diode Thermal Test.





#### FIG. 2 TYPICAL FORWARD CHARACTERISTICS

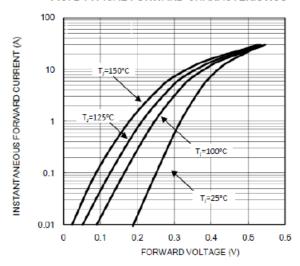


FIG. 3 TYPICAL REVERSE CHARACTERISTICS

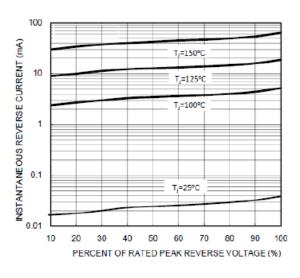


FIG. 4 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

