



#### **ULTRA LOW IR SCHOTTKY RECTIFIER**

Voltage 60 V Current 3 A

#### **Features**

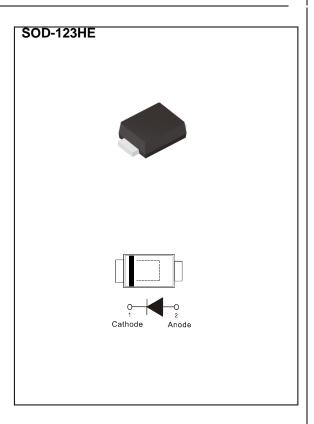
- Ultra low IR
- Deal for automated placement
- Low power loss, high efficiency
- High surge current capability
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard
- AEC-Q101 qualified

#### **Mechanical Data**

• Case: SOD-123HE Package

• Terminals: Solderable per MIL-STD-750, Method 2026

• Approx. Weight: 0.0006 ounces, 0.018 grams



# **Maximum Ratings and Thermal Characteristics** ( $T_A = 25$ $^{\circ}C$ unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	60	V
Maximum Rms Voltage	$V_{RMS}$	42	V
Maximum Dc Blocking Voltage	$V_{DC}$	60	V
Maximum Average Forward Current	I <sub>F(AV)</sub>	3	Α
Peak Forward Surge Current: 8.3 ms Single Half Sine- Wave Superimposed On Rated Load	I <sub>FSM</sub>	80	А
Typical Junction Capacitance  Measured at 1 MHZ And Applied $V_R = 4 \text{ V}$	C <sub>J</sub>	150	pF
Typical Thermal Resistance	R <sub>θJA</sub> <sup>(1)</sup> R <sub>θJC</sub> <sup>(2)</sup>	185 20	°C/W
Operating Junction Temperature Range	TJ	-55~175	°C
Storage Temperature Range	T <sub>STG</sub>	-55~175	°C





## **Electrical Characteristics** (T<sub>A</sub> = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 1 A, T <sub>J</sub> = 25 °C	-	0.54	-	V
		$I_F = 3 \text{ A}, T_J = 25 ^{\circ}\text{C}$	-	-	0.7	
		I <sub>F</sub> = 1 A, T <sub>J</sub> = 125 °C	-	0.44	-	
		I <sub>F</sub> = 3 A, T <sub>J</sub> = 125 °C	-	0.56	-	
Reverse Current	I <sub>R</sub> <sup>(3)</sup>	$V_R = 48 \text{ V}, T_J = 25 ^{\circ}\text{C}$	-	0.1	ı	uA
		$V_R = 60 \text{ V}, T_J = 25 ^{\circ}\text{C}$	-	-	5	
		$V_R = 60 \text{ V}, T_J = 125 ^{\circ}\text{C}$	-	0.21	-	mA

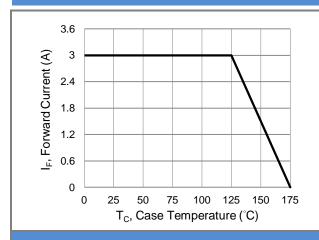
#### NOTES:

- 1. Mounted on a FR4 PCB, single-sided copper, mini pad.
- 2. Mounted on a FR4 PCB, single-sided copper, with 100cm<sup>2</sup> copper pad area.
- 3. Short duration pulse test used to minimize self-heating effect.





#### **TYPICAL CHARACTERISTIC CURVES**



**Fig.1 Forward Current Derating Curve** 

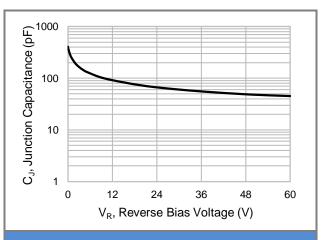


Fig.2 Typical Junction Capacitance

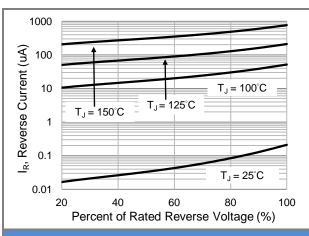


Fig.3 Typical Reverse Characteristics

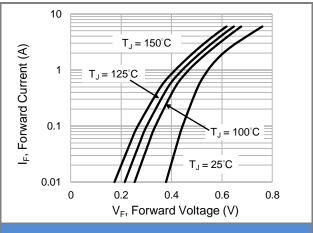
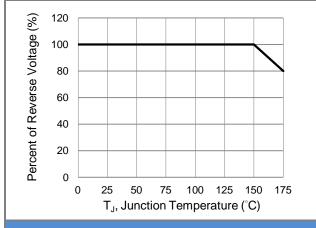


Fig.4 Typical Forward Characteristics



**Fig.5 Operating Temperature Derating Curve** 

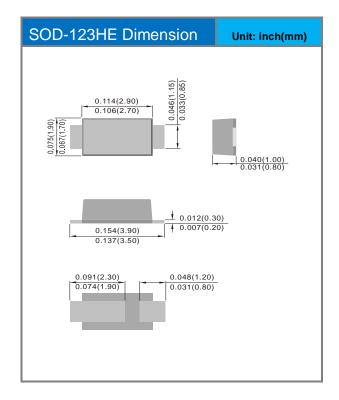


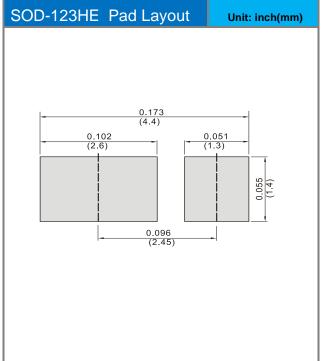


#### **Part No Packing Code Version**

Part No Packing Code	Package Type	Packing Type	Marking	Version
MB3H60AH-AU_R1_000A1	SOD-123HE	3K / 7" Reel	ER	Halogen free

### **Packaging Information & Mounting Pad Layout**





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