



MB3H60AH-AU

ULTRA LOW IR SCHOTTKY RECTIFIER

Voltage	60 V	Current	3 A
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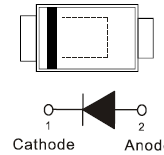
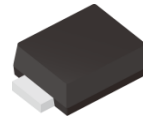
Features

- 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

SOD-123HE



Maximum Ratings and Thermal Characteristics (T_A = 25 °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 _{F(AV)}	3	A
Peak Forward Surge Current: 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	I _{FSM}	80	A
Typical Junction Capacitance Measured at 1 MHz And Applied V _R = 4 V	C _J	150	pF
Typical Thermal Resistance	R _{θJA} ⁽¹⁾	185	°C/W
	R _{θJC} ⁽²⁾	20	
Operating Junction Temperature Range	T _J	-55~175	°C
Storage Temperature Range	T _{STG}	-55~175	°C



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

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	V_F	$I_F = 1\text{ A}, T_J = 25^\circ\text{C}$	-	0.54	-	V
		$I_F = 3\text{ A}, T_J = 25^\circ\text{C}$	-	-	0.7	
		$I_F = 1\text{ A}, T_J = 125^\circ\text{C}$	-	0.44	-	
		$I_F = 3\text{ A}, T_J = 125^\circ\text{C}$	-	0.56	-	
Reverse Current	$I_R^{(3)}$	$V_R = 48\text{ V}, T_J = 25^\circ\text{C}$	-	0.1	-	uA
		$V_R = 60\text{ V}, T_J = 25^\circ\text{C}$	-	-	5	mA
		$V_R = 60\text{ V}, T_J = 125^\circ\text{C}$	-	0.21	-	

NOTES:

1. Mounted on a FR4 PCB, single-sided copper, mini pad.
2. Mounted on a FR4 PCB, single-sided copper, with 100cm² copper pad area.
3. Short duration pulse test used to minimize self-heating effect.



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TYPICAL CHARACTERISTIC CURVES

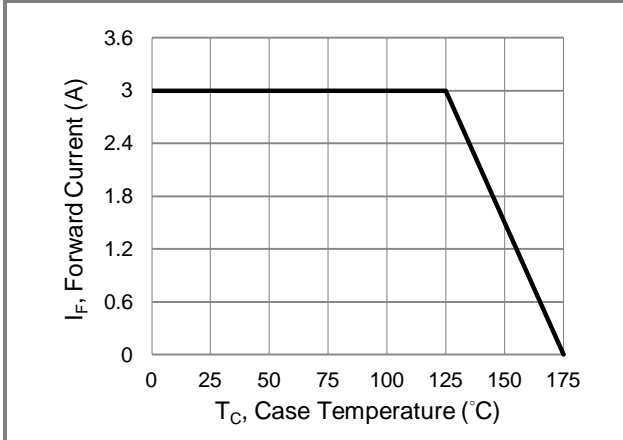


Fig.1 Forward Current Derating Curve

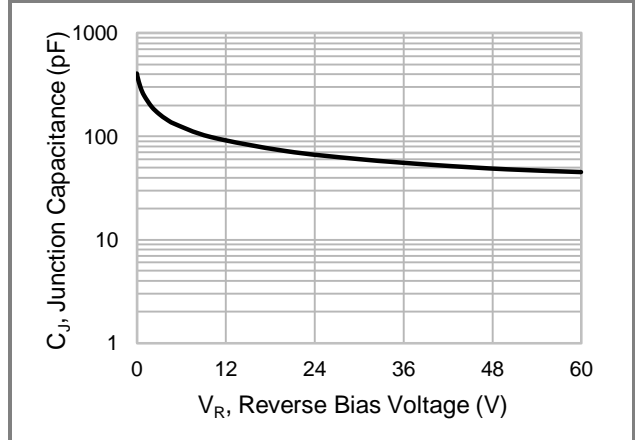


Fig.2 Typical Junction Capacitance

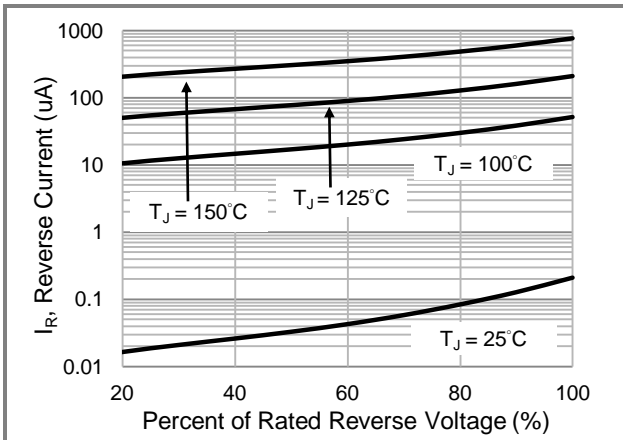


Fig.3 Typical Reverse Characteristics

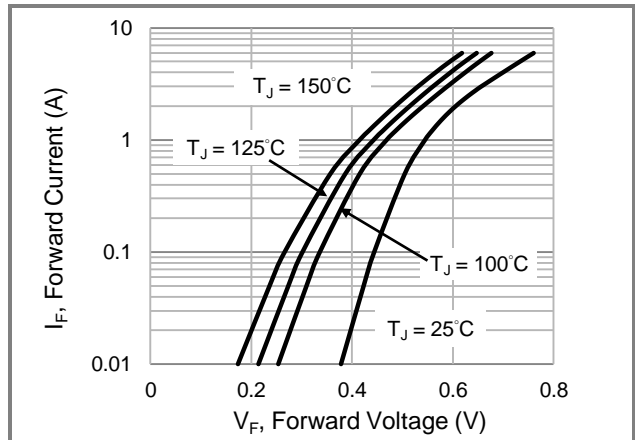


Fig.4 Typical Forward Characteristics

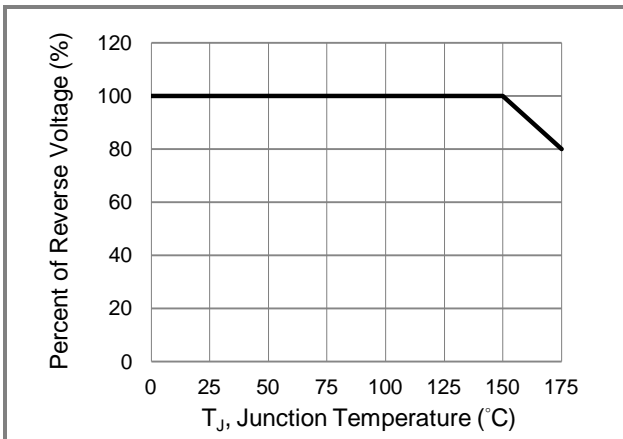


Fig.5 Operating Temperature Derating Curve

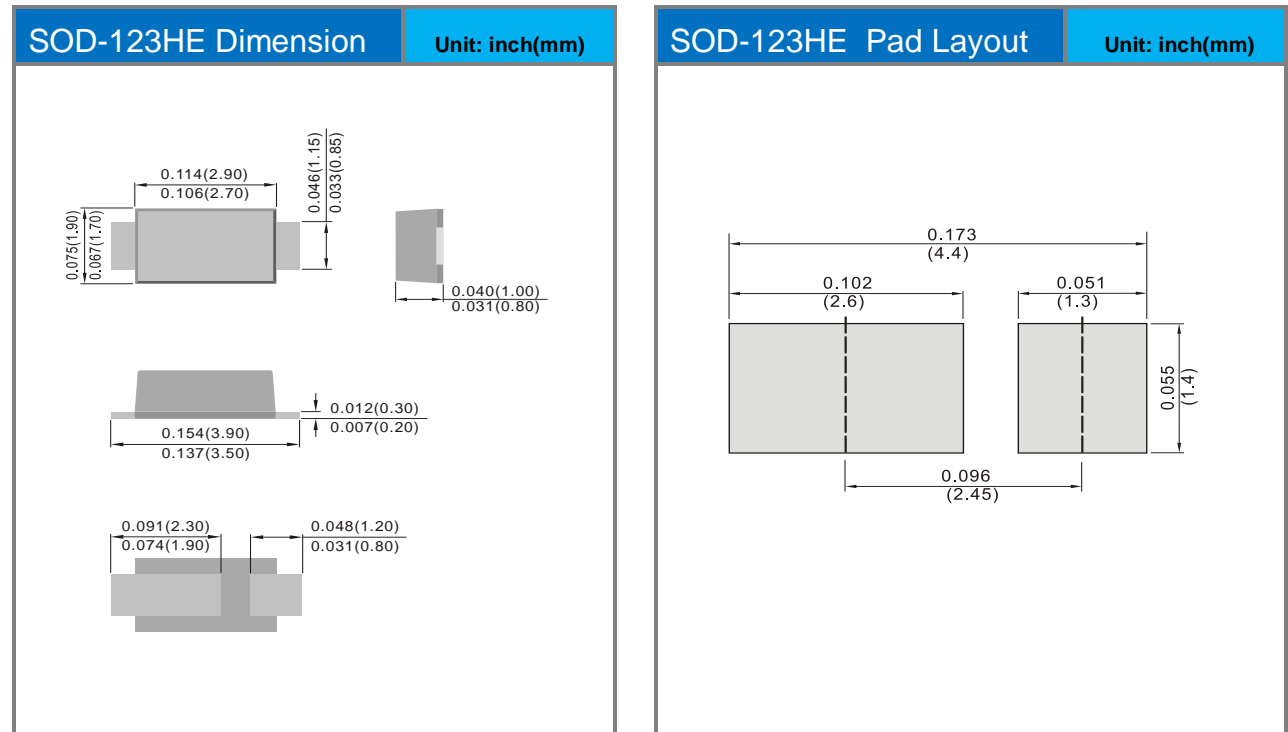


MB3H60AH-AU

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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