

SS1040HE-AU

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Voltage

40 V

Current

1 A

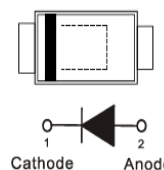
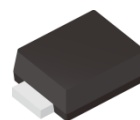
Features

- Low forward voltage drop
- 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, 0.0184 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}	40	V
Maximum Rms Voltage	V _{RMS}	28	V
Maximum Dc Blocking Voltage	V _{DC}	40	V
Maximum Average Forward Current	I _{F(AV)}	1	A
Peak Forward Surge Current: 8.3 ms single half sine-wave superimposed on rated load per diode	I _{FSM}	30	A
Typical Junction Capacitance Measured at 1 MHz And Applied VR = 4V	C _J	60	pF
Typical Thermal Resistance	R _{θJA} ⁽¹⁾ R _{θJC} ⁽²⁾	185 20	°C/W
Operating Junction Temperature Range	T _J	-55~150	°C
Storage Temperature Range	T _{STG}	-55~150	°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	$I_F = 0.5\text{ A}, T_J = 25^\circ\text{C}$	-	0.41	-	V
		$I_F = 1\text{ A}, T_J = 25^\circ\text{C}$	-	-	0.5	
		$I_F = 0.5\text{ A}, T_J = 125^\circ\text{C}$	-	0.31	-	
		$I_F = 1\text{ A}, T_J = 125^\circ\text{C}$	-	0.4	-	
Reverse Current	$I_R^{(3)}$	$V_R = 32\text{ V}, T_J = 25^\circ\text{C}$	-	3.3	-	μA
		$V_R = 40\text{ V}, T_J = 25^\circ\text{C}$	-	-	30	
		$V_R = 40\text{ V}, T_J = 125^\circ\text{C}$	-	3	-	mA

NOTES:

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

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TYPICAL CHARACTERISTIC CURVES

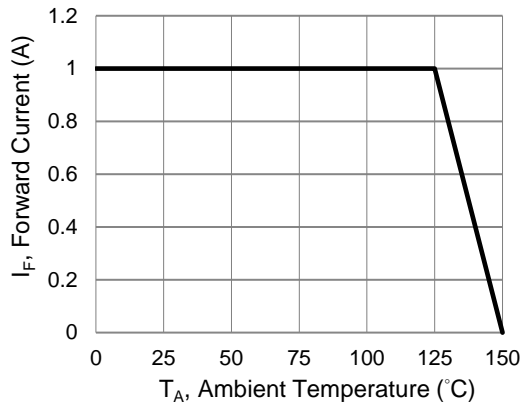


Fig.1 Forward Current Derating Curve

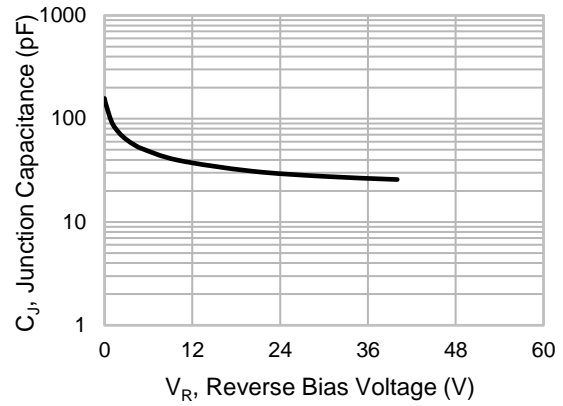


Fig.2 Typical Junction Capacitance

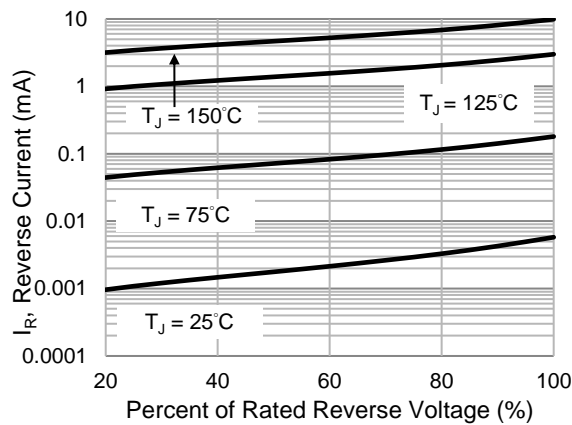


Fig.3 Typical Reverse Characteristics

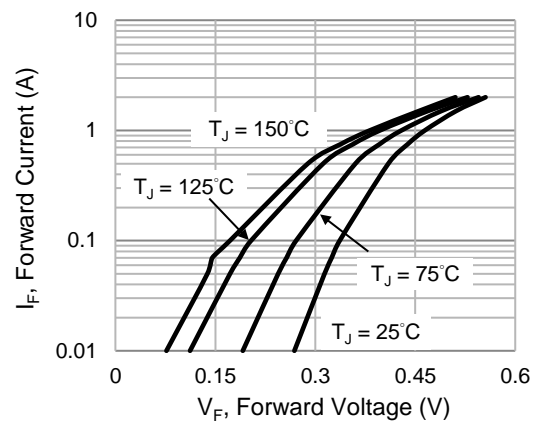


Fig.4 Typical Forward Characteristics

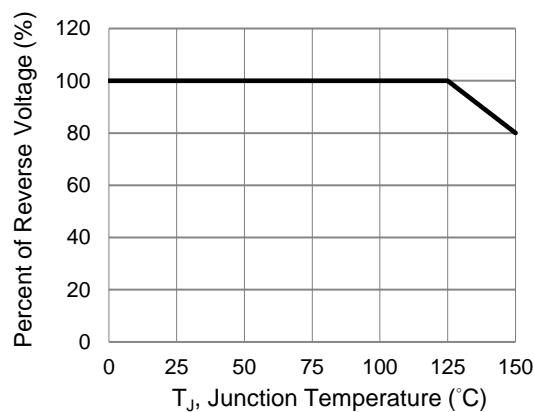


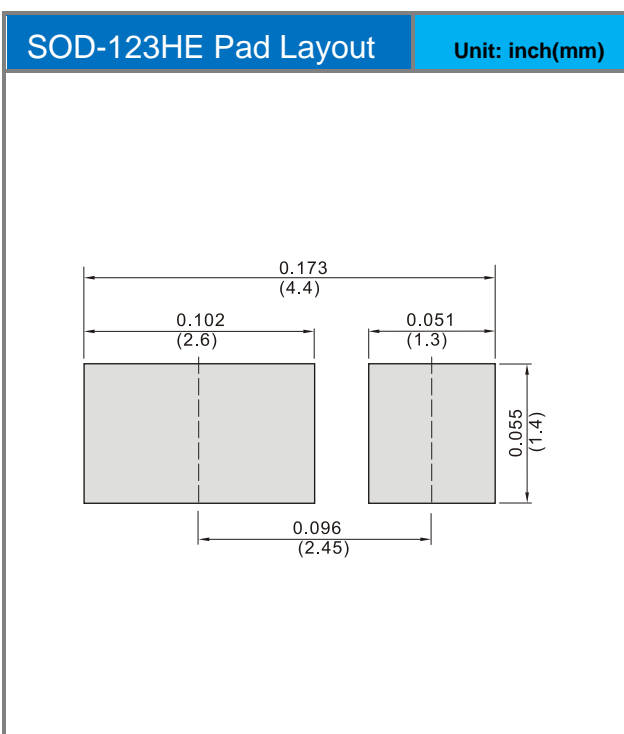
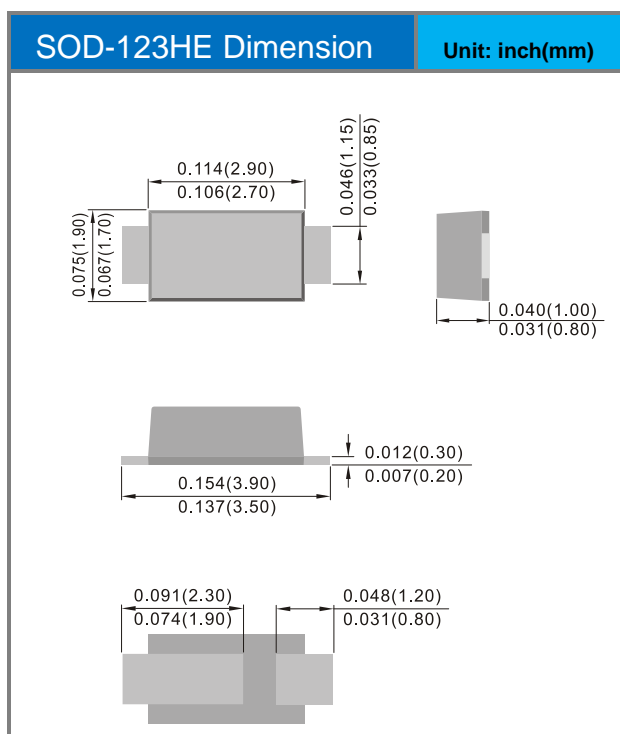
Fig.5 Operating Temperature Derating Curve

SS1040HE-AU

Product and Packing Information

Part No.	Package Type	Packing Type	Marking
SS1040HE-AU	SOD-123HE	3K / 7" Reel	EM

Packaging Information & Mounting Pad Layout



SS1040HE-AU

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