



SB3H60AH

SCHOTTKY BARRIER RECTIFIER

Voltage

60 V

Current

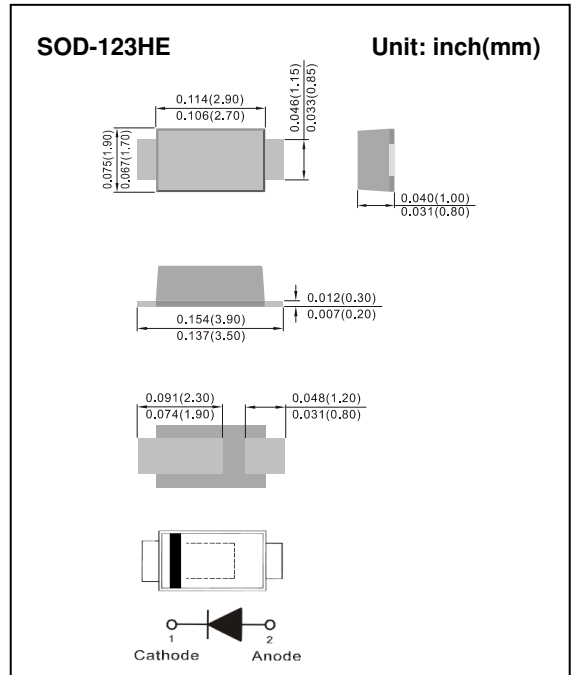
3 A

Features

- Low forward voltage drop, low reverse current
- High efficiency
- Low thermal resistance
- Lead free in compliance with EU RoHS2.0 (2011/65/EU & 2015/865/EU directive)
- Green molding compound as per IEC61249 Std. . (Halogen Free)

Mechanical Data

- Case: SOD-123HE Molded Plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Weight: 0.0006 ounces, 0.0184 grams



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

PARAMETER	SYMBOL	LIMIT	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	60	V
Maximum rms voltage	V_{RMS}	42	V
Maximum dc blocking voltage	V_R	60	V
Maximum average forward rectified current	$I_{F(AV)}$	3	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	80	A
Typical junction capacitance ($V_R=4V, f=1\text{MHz}$)	C_J	150	pF
Typical thermal resistance	(Note 2) $R_{\theta JC}$	16	$^{\circ}\text{C/W}$
	(Note 2) $R_{\theta JL}$	12	
	(Note 1) $R_{\theta JA}$	185	
Operating junction temperature range	T_J	-55 to +175	$^{\circ}\text{C}$
Storage temperature range	T_{STG}	-55 to +175	$^{\circ}\text{C}$

Note : 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



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

PARAMETER	SYMBOL	TEST CONDITION		MIN.	TYP.	MAX.	UNITS
Breakdown voltage	V_{BR}	$I_R=0.5\text{mA}$	$T_J=25^{\circ}\text{C}$	60	-	-	V
Instantaneous forward voltage	V_F	$I_F=1\text{A}$	$T_J=25^{\circ}\text{C}$	-	0.54	-	V
		$I_F=3\text{A}$		-	-	0.7	
		$I_F=1\text{A}$	$T_J=125^{\circ}\text{C}$	-	0.44	-	V
		$I_F=3\text{A}$		-	0.56	-	
Reverse current	I_R	$V_R=48\text{V}$	$T_J=25^{\circ}\text{C}$	-	100	-	nA
		$V_R=60\text{V}$	$T_J=25^{\circ}\text{C}$	-	-	5	A
			$T_J=125^{\circ}\text{C}$	-	-	2	mA



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TYPICAL CHARACTERISTIC CURVES

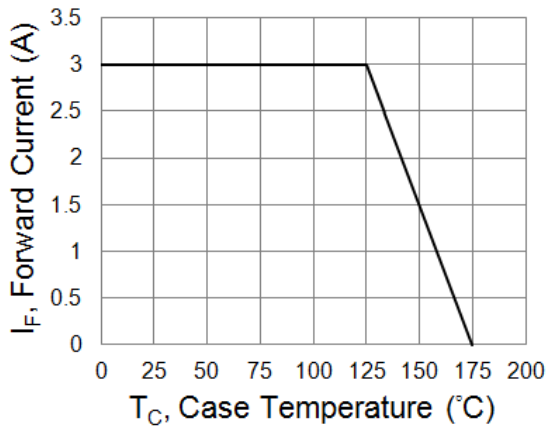


Fig.1 Forward Current Derating Curve

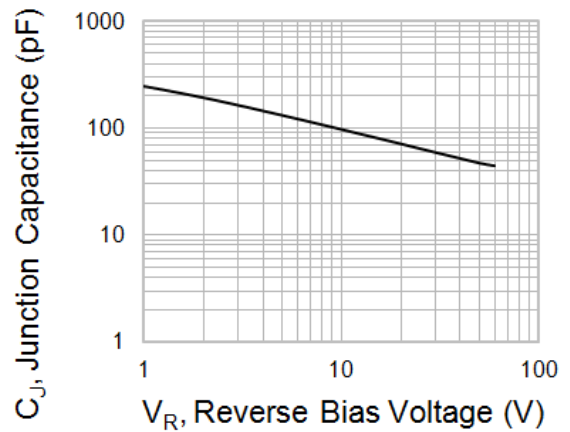


Fig.2 Typical Junction Capacitance

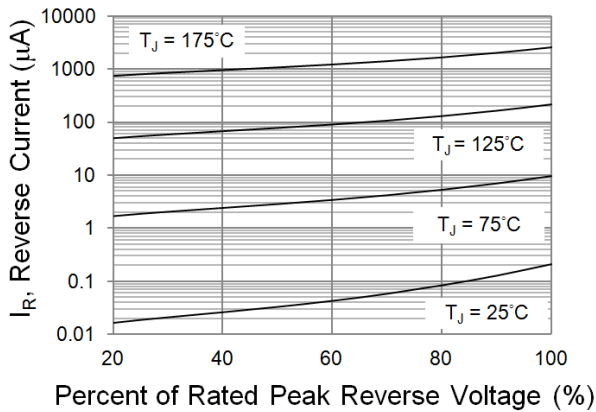


Fig.3 Typical Reverse Characteristics

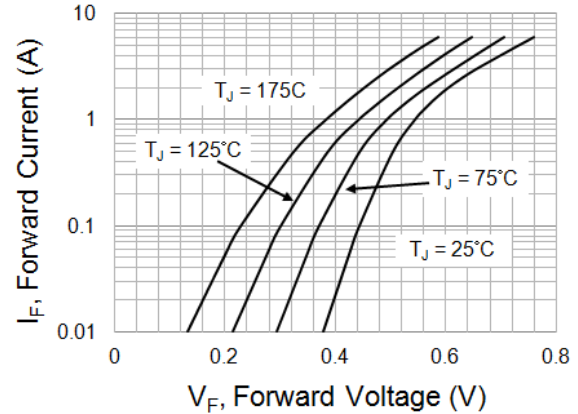


Fig.4 Typical Forward Characteristics

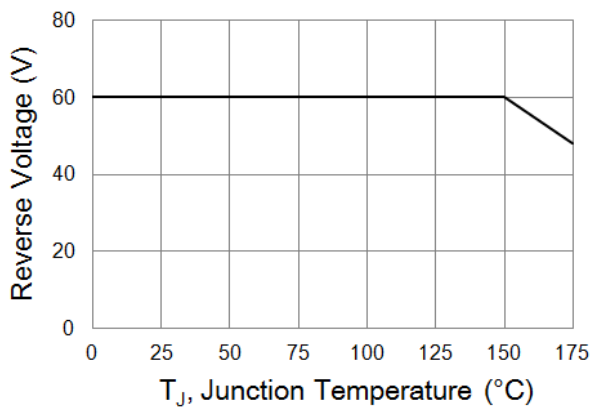


Fig.5 Operating Temperature Derating Curve



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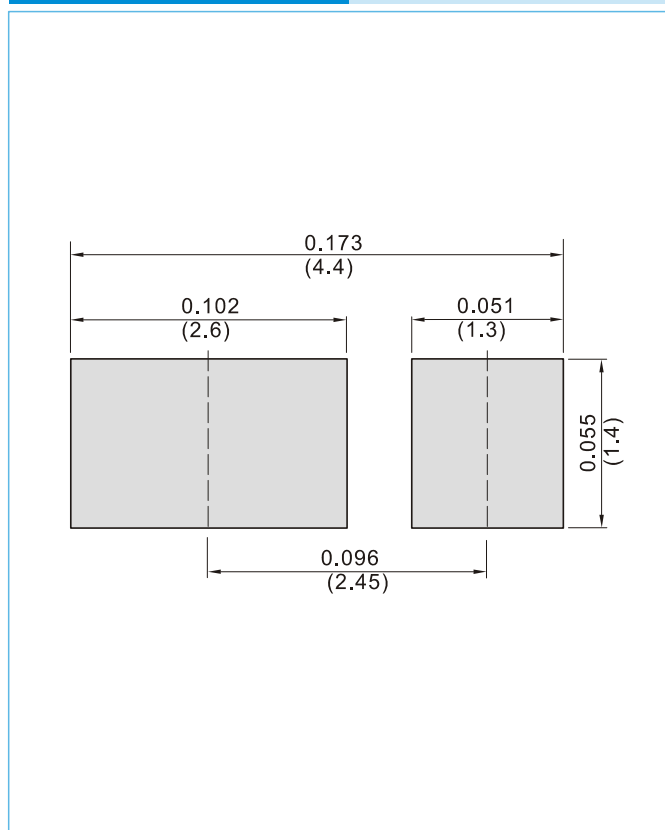
Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
SB3H60AH_R1_00001	SOD-123HE	3K pcs / 7" reel	ER	Halogen free
SB3H60AH_R2_00001	SOD-123HE	10K pcs / 13" reel	ER	Halogen free

Mounting Pad Layout

SOD-123HE

Unit : inch(mm)





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