

SHB08H100SA-HAF

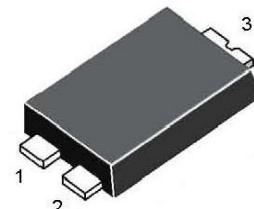
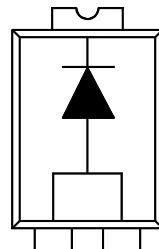
Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 100 V

Forward Current - 8 A

Features

- Low forward voltage drop
- Very low leakage current
- High maximum junction temperature capability
- Highly stable oxide passivated junction
- High forward surge current capability
- Halogen and Antimony Free(HAF),
RoHS compliant



1.Anode 2.Anode 3.Cathode
TO-277 Plastic Package

Applications

- Polarity Protection Diode
- Re-circulating Diode
- Switching Diode

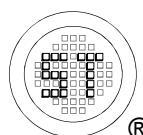
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbols	Value	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Maximum RMS Voltage	V_{RMS}	70	V
Maximum DC Blocking Voltage	V_{DC}	100	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	8	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load(JEDEC method)	I_{FSM}	130	A
Junction Temperature	T_J	175	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 175	$^\circ\text{C}$

Thermal Characteristics

Parameter	Symbol	Value	Unit
Typical Thermal Resistance Junction to Ambeint ¹⁾	$R_{\theta JA}$	36	$^\circ\text{C/W}$
Typical Thermal Resistance Junction to Lead ¹⁾	$R_{\theta JL}$	9	$^\circ\text{C/W}$

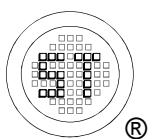
¹⁾ Device mounted on FR-4 substrate PC board, 2oz copper, with 1-inch square copper plate.



SHB08H100SA-HAF

Electrical Characteristics ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 1 \text{ mA}$	$V_{(BR)R}$	100	-	-	V
Forward Voltage at $I_F = 8 \text{ A}$ at $I_F = 8 \text{ A}, T_j = 125^\circ\text{C}$	V_F	- -	- 631	880 -	mV
Reverse Current at $V_R = 100 \text{ V}$ at $V_R = 100 \text{ V}, T_j = 125^\circ\text{C}$	I_R	- -	- 400	2 -	μA
Junction Capacitance at $V_R = 4 \text{ V}, f = 1 \text{ MHz}$	C_j	-	272	-	pF



SHB08H100SA-HAF

Electrical Characteristics Curves

Fig 1. Reverse Characteristic Curve

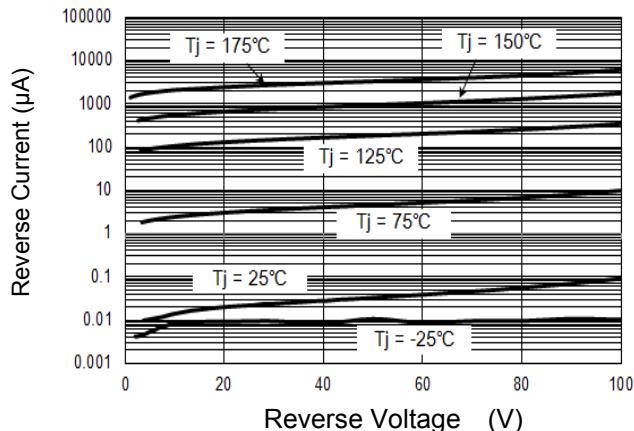


Fig 2. Forward Characteristic Curve

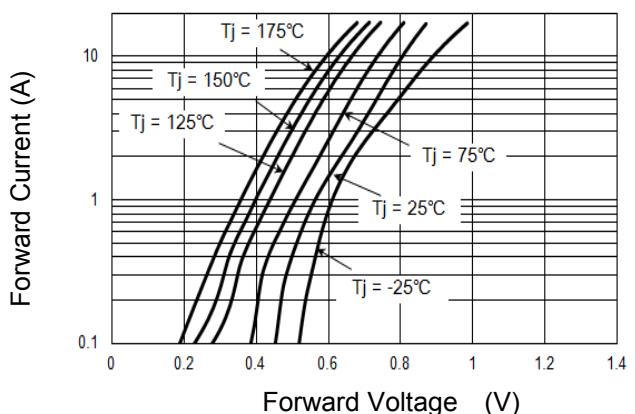


Fig 3. Junction Capacitance

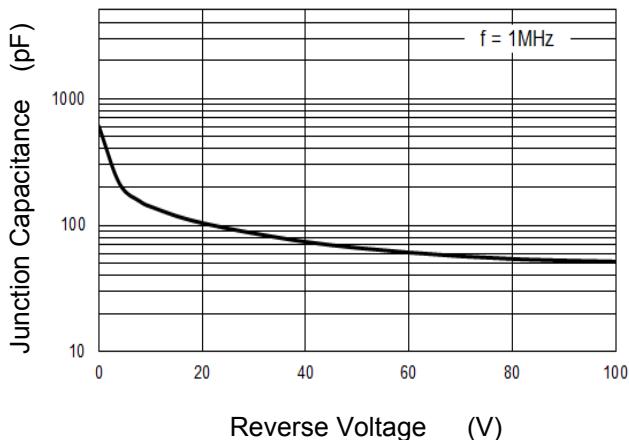


Fig 4. Average Rectified Current Derating Curve

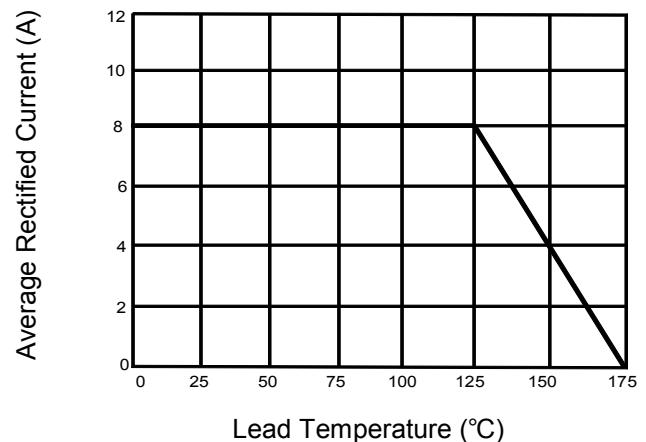
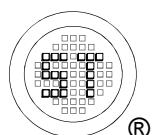
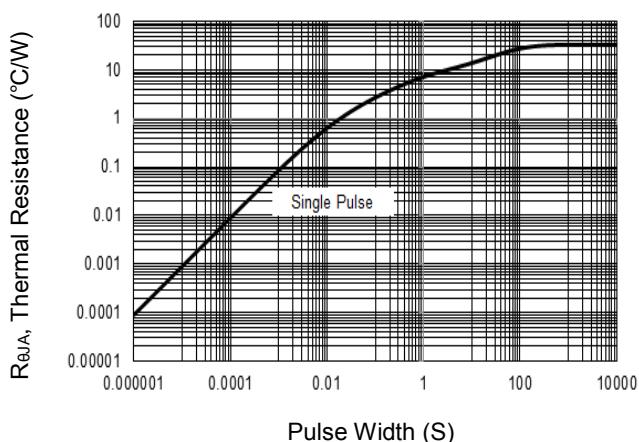


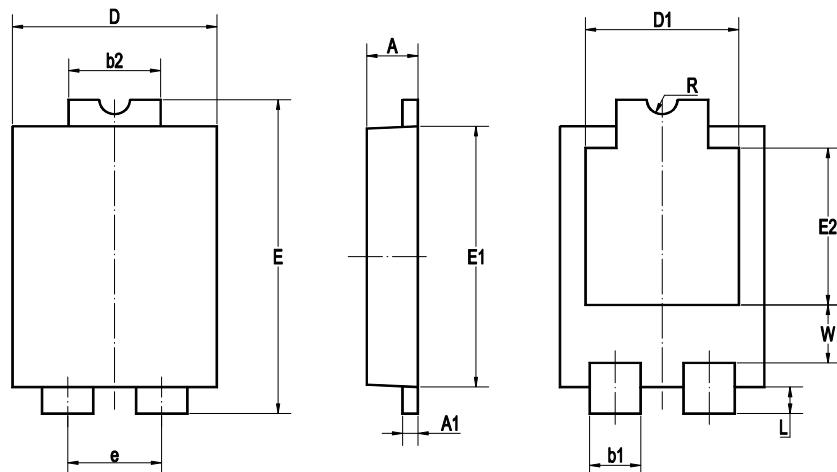
Fig 5. Thermal Resistance



SHB08H100SA-HAF

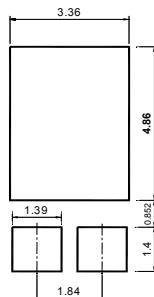
Package Outline Dimensions (Units : mm)

TO-277



UNIT	A	A1	b1	b2	D	D1	E	E1	E2	e	L	W	R
mm	1.15	0.3	1.0	1.9	4.05	3.05	6.65	5.45	3.25	1.84	0.65	1.3	0.3
	1.05	0.24	0.8	1.7	3.9		Typ.	6.35	5.3	Typ.	Typ.	0.5	1.0

Recommended Soldering Footprint



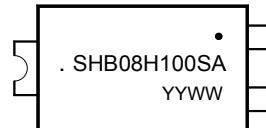
Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
TO-277	12	8 ± 0.1	0.315 ± 0.004	330	13	5,000

Marking information

- " SHB08H100SA " = Part No.
- " • " = HAF (Halogen and Antimony Free)
- " YYWW " = Date Code Marking
- " Y " = Year (ex: 19 = 2019)
- " W " = Week (ex: 09 = the 9th week of the year)

Font type: Arial



Disclaimer: Our company reserve the right to make modifications, enhancements, improvements, corrections or other changes to improve product design, functions and reliability, anytime without notice. Semtech Electronics Limited makes no warranties, representations or warranties regarding the suitability of its products for any particular purpose, and does not accept any liability arising from the application or use of any product or circuit such as: Apply to medical, military, aircraft, space or life support equipment and expressly waive any and all liability, including but not limited to special, consequential or collateral damage.

