

BAT60BHS

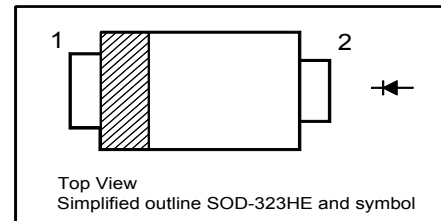
Surface Mount Schottky Barrier Rectifier

Features

- High current rectifier schottky diode with very low V_F drop
- For power supply applications
- For clamping and protection in low voltage applications
- For detection and step-up-conversion

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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

Parameter	Symbol	Value	Unit
Reverse Voltage	V_R	10	V
Forward Current	I_F	3	A
Non-Repetitive Peak Surge Forward Current ($t \leq 8.3$ ms)	I_{FSM}	19	A
Total Power Dissipation	P_{tot}	1350	mW
Operating Junction Temperature Range	T_J	- 55 to + 125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

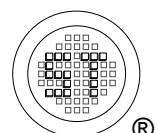
Thermal Characteristics

Parameter	Symbol	Value	Unit
Typical Thermal Resistance from Junction to Ambient ¹⁾	$R_{\theta JA}$	74	$^\circ\text{C/W}$

¹⁾ Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.

Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 150 \mu\text{A}$	$V_{(BR)R}$	10	-	V
Forward Voltage at $I_F = 10$ mA at $I_F = 100$ mA at $I_F = 500$ mA at $I_F = 1000$ mA	V_F	- - - -	0.3 0.38 0.5 0.58	V
Reverse Current at $V_R = 5$ V at $V_R = 8$ V at $V_R = 8$ V, $T_J = 75^\circ\text{C}$	I_R	- - -	3 4 150	μA
Total Capacitance at $V_R = 5$ V, $f = 1$ MHz	C_T	-	40	pF



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Electrical Characteristics Curves

Fig 1. Forward Current Derating Curve

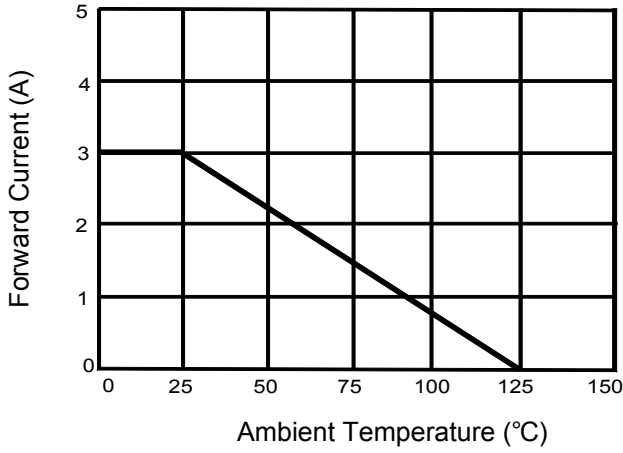


Fig 2. Forward Characteristics Curve

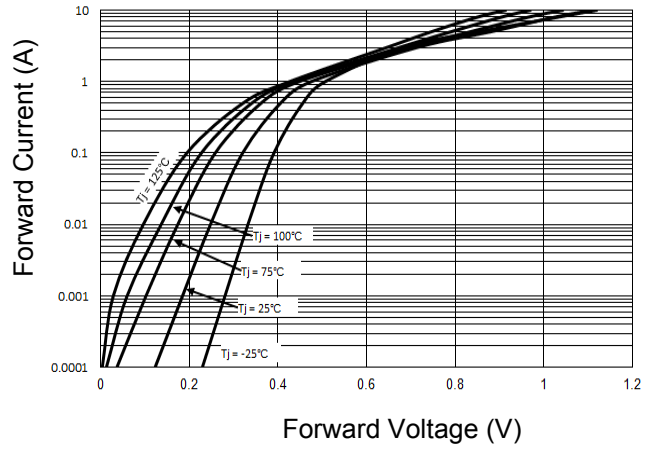


Fig 3. Reverse Characteristics Curve

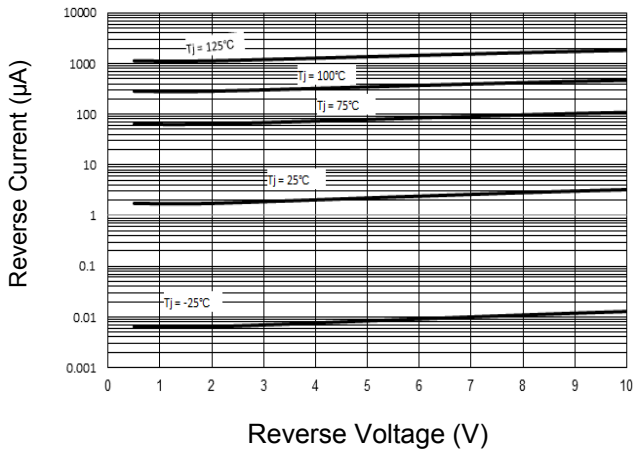
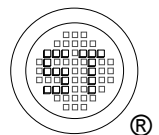
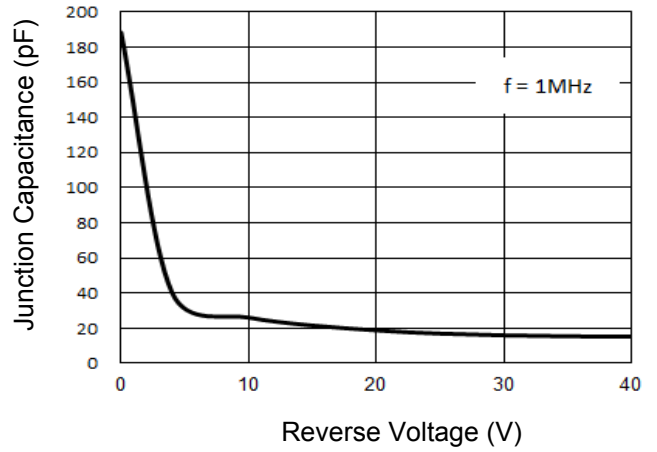


Fig 4. Junction Capacitance

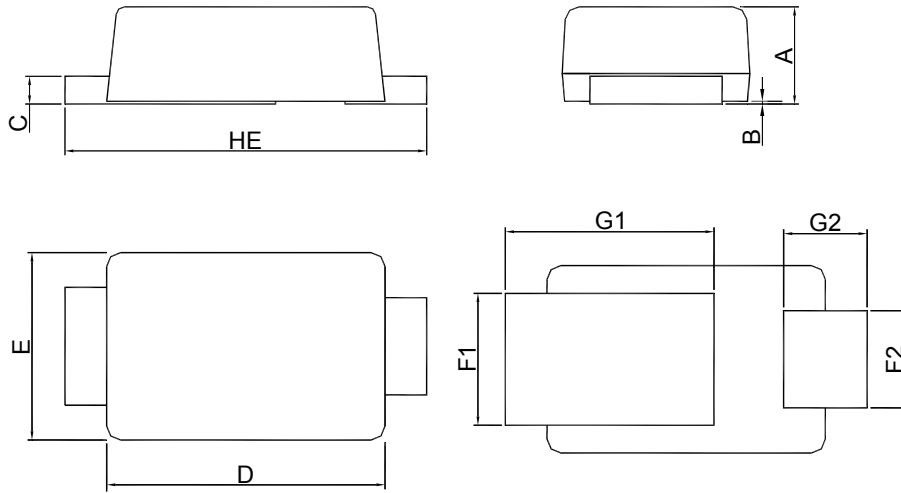


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PACKAGE OUTLINE

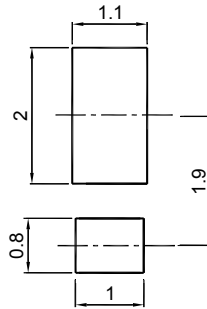
Plastic surface mounted package; 2 leads

SOD-323HE



UNIT	A	B	C	D	E	F1	F2	G1	G2	H _E
mm	0.7	0.02	0.2	2	1.35	0.95	0.7	1.5	0.6	2.6
	0.5	0	0.1	1.8	1.15	0.75	0.5	1.3	0.4	2.4

Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOD-323HE	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

Marking information

" Z9 " = Part No.

" III " = Cathode line

Font type: Arial

