

SDB16HS

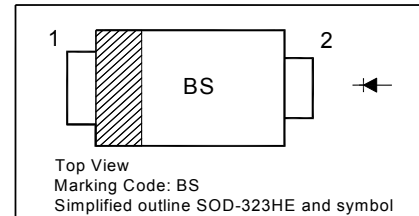
Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 60 V

Forward Current - 1 A

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Absolute Maximum Ratings and Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

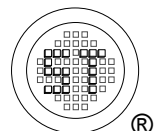
Parameter	Symbols	Value	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	60	V
Maximum RMS Voltage	V_{RMS}	42	V
Maximum DC Blocking Voltage	V_{DC}	60	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1	A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	22	A
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	173 ¹⁾ 125 ²⁾	°C/W
Operating and Storage Temperature Range	T_J, T_{stg}	- 65 to + 150	°C

¹⁾ FR-4 PCB, 2 oz. Copper, minimum recommended pad layout .

²⁾ Polyimide PCB, 2 oz. Copper, minimum recommended pad layout .

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

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Voltage at $I_R = 100 \mu\text{A}$	$V_{(BR)R}$	60	-	-	V
Forward Voltage at $I_F = 0.1 \text{ A}$ at $I_F = 0.7 \text{ A}$ at $I_F = 1 \text{ A}$	V_F	- - -	- - -	0.45 0.58 0.64	V
Reverse Current at $V_R = 5 \text{ V}, T_J = 25^\circ\text{C}$ at $V_R = 60 \text{ V}, T_J = 25^\circ\text{C}$	I_R	- -	- -	5 100	μA
Diode Capacitance at $V_R = 10 \text{ V}, f = 1 \text{ MHz}$	C_D	-	38	-	pF



Electrical Characteristics Curves

Fig 1. Reverse Characteristics Curve

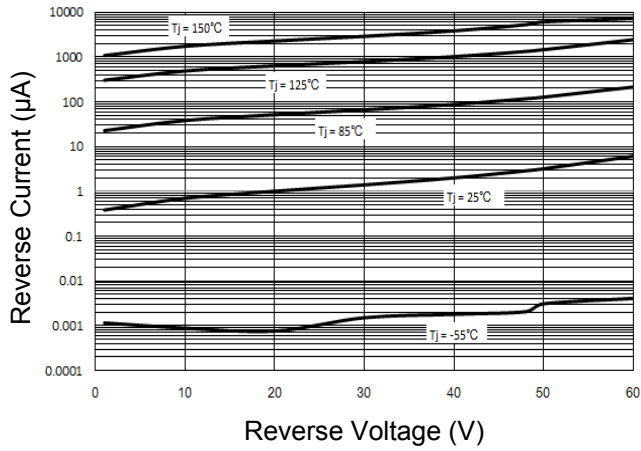


Fig 2. Forward Characteristics Curve

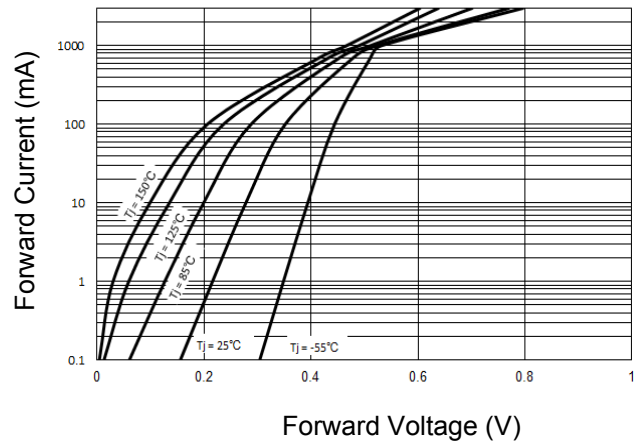
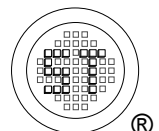
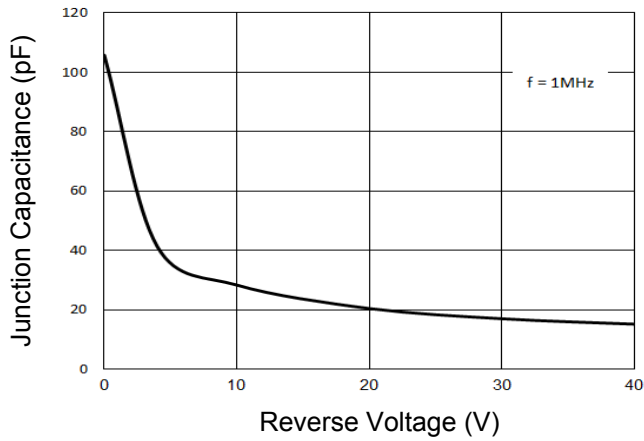


Fig 3. Junction Capacitance

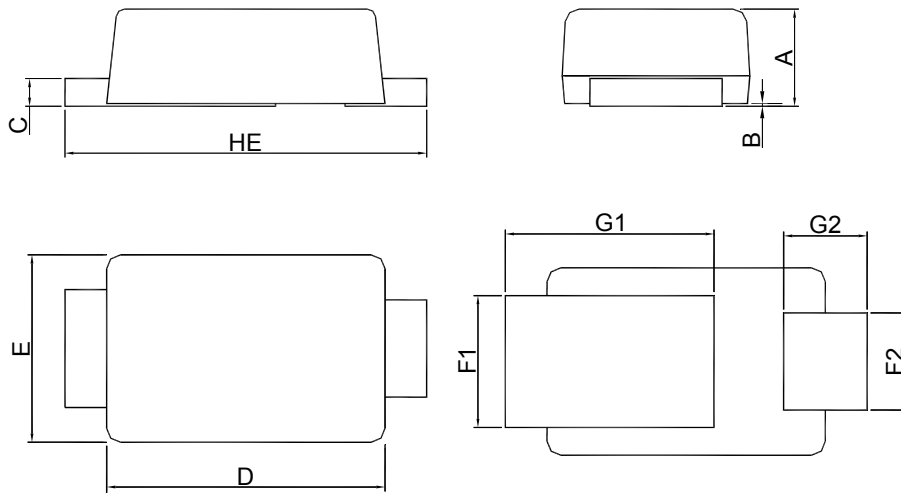


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PACKAGE OUTLINE

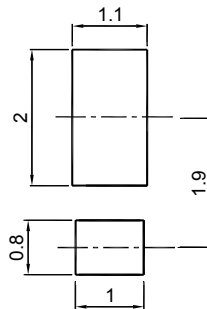
Plastic surface mounted package; 2 leads

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

" III " = Cathode line

"BS" = Part No.

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