

SDB1045HB

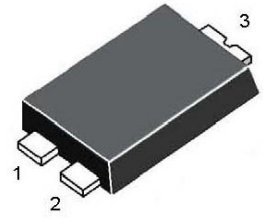
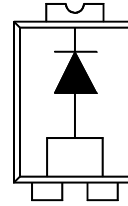
Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 45 V

Forward Current - 10 A

Features

- High forward surge capability
- Ultra low forward voltage drop
- Excellent high temperature stability



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

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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	45	V
Reverse Voltage	V_R	45	V
Average Rectified Output Current	I_o	10	A
Non-repetitive Peak Forward Surge Current ($t = 8.3 \text{ ms}$)	I_{FSM}	180	A
Operating Temperature Range	T_J	- 65 to + 150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 175	$^\circ\text{C}$

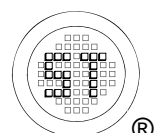
Thermal Characteristics

Parameter	Symbol	Value	Unit
Thermal Resistance, Junction to Ambient ¹⁾	$R_{\theta JA}$	102	$^\circ\text{C/W}$

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

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

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 500 \mu\text{A}$	$V_{(BR)R}$	45	-	V
Forward Voltage at $I_F = 8 \text{ A}$ at $I_F = 10 \text{ A}$	V_F	- -	0.51 0.55	V
Reverse Current at $V_R = 45 \text{ V}$ at $V_R = 45 \text{ V}, T_J = 85^\circ\text{C}$ at $V_R = 45 \text{ V}, T_J = 125^\circ\text{C}$	I_R	- - -	0.45 10 50	mA



Electrical characteristics curves

Fig 1. Reverse Characteristics Curve

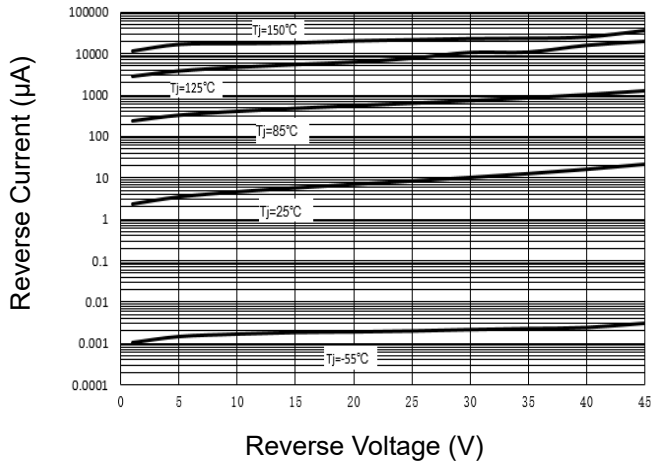


Fig 2. Forward Characteristics Curve

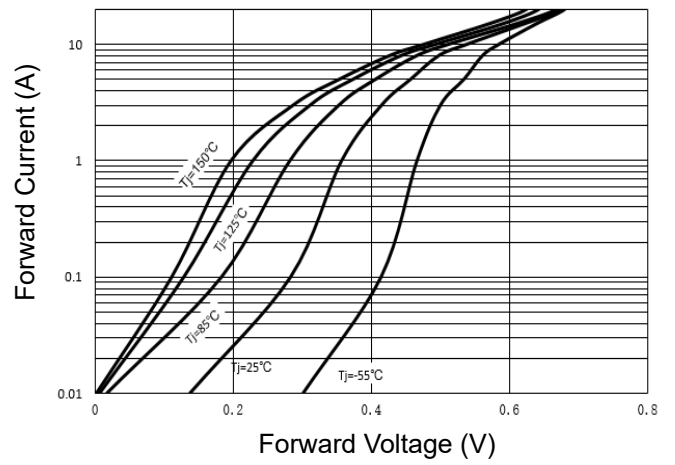


Fig 3. Junction Capacitance

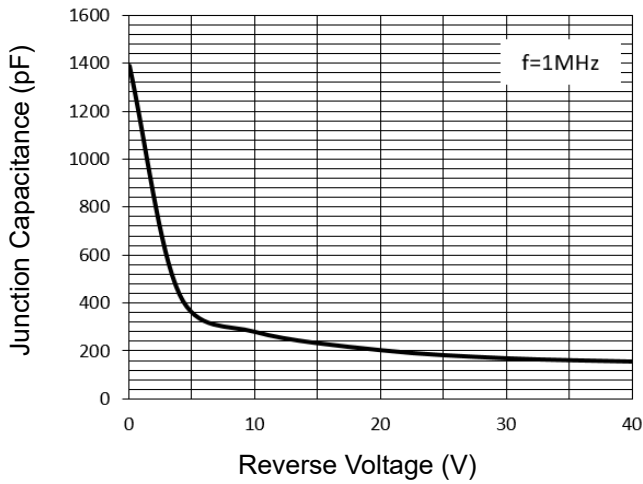
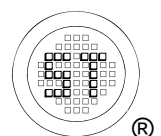
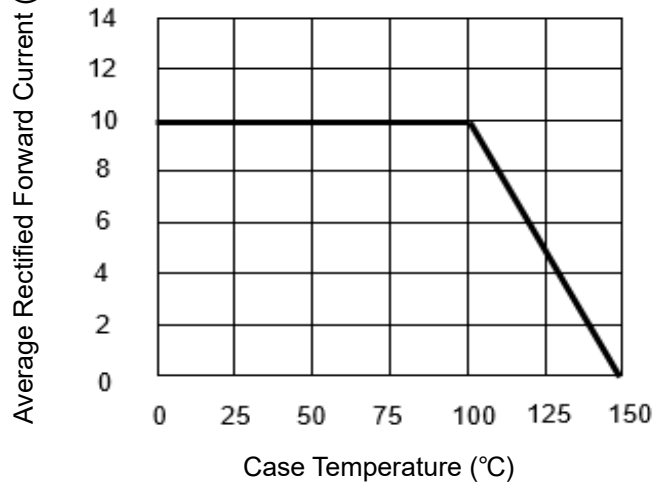


Fig 4. Forward Current Derating Curve

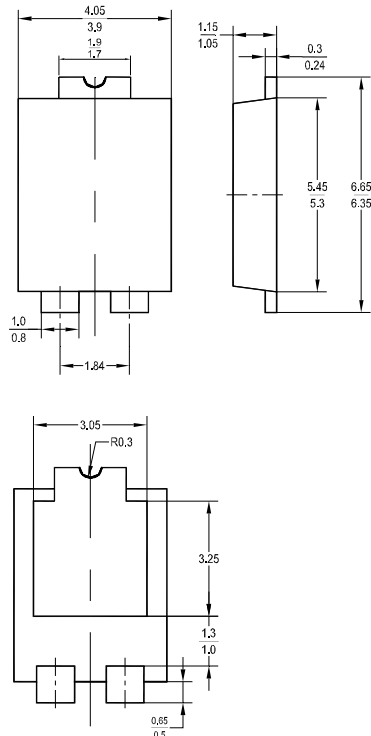


SDB1045HB

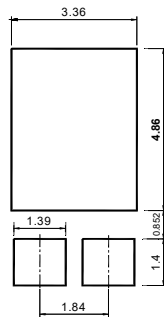
PACKAGE OUTLINE

Plastic surface mounted package (Units: mm)

TO-277



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

" SDB1045HB " = Part No.
 " YYWW " = Date Code Marking
 " Y " = Year (ex: 19 = 2019)
 " W " = Week (ex: 09 = the 9th week of the year)
 Font type: Arial

