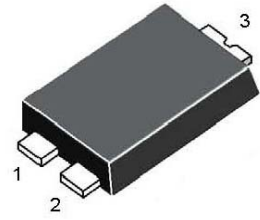
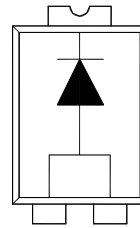


SDB10100HB

Surface Mount Schottky Barrier Rectifier

Features

- 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}	100	V
Average Rectified Forward Current	$I_{F(AV)}$	10	A
Non-repetitive Peak Forward Surge Current ($t = 10 \text{ ms}$)	I_{FSM}	180	A
Peak repetitive reverse current at $t_p = 2 \mu\text{s}$, 1 kHz, $T_J = 38^\circ\text{C} \pm 2^\circ\text{C}$	I_{RRM}	1	A
Operating Junction and Storage Temperature Range	T_J, T_{stg}	- 40 to + 150	$^\circ\text{C}$

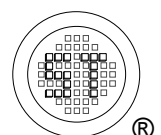
Thermal Characteristics

Parameter	Symbol	Value	Unit
Typical Thermal Resistance from Junction to Ambient ¹⁾	$R_{\theta JA}$	60	$^\circ\text{C/W}$
Typical Thermal Resistance from Junction to Lead	$R_{\theta JL}$	3	$^\circ\text{C/W}$

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

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

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 1 \text{ mA}$	$V_{(BR)R}$	100	-	-	V
Forward Voltage at $I_F = 5 \text{ A}$ at $I_F = 10 \text{ A}$ at $I_F = 5 \text{ A}$, $T_J = 125^\circ\text{C}$ at $I_F = 10 \text{ A}$, $T_J = 125^\circ\text{C}$	V_F	- - - -	0.512 - 0.453 -	- 0.68 - 0.62	V
Reverse Current at $V_R = 70 \text{ V}$ at $V_R = 70 \text{ V}$, $T_J = 125^\circ\text{C}$ at $V_R = 100 \text{ V}$ at $V_R = 100 \text{ V}$, $T_J = 125^\circ\text{C}$	I_R	- - - -	7.1 4.5 - -	- - 150 20	μA mA μA mA



Electrical Characteristics Curves

Fig 1. Reverse Characteristics Curve

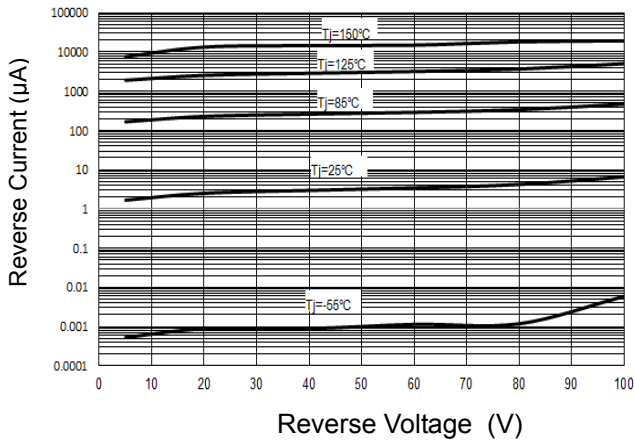


Fig 2. Forward Characteristics Curve

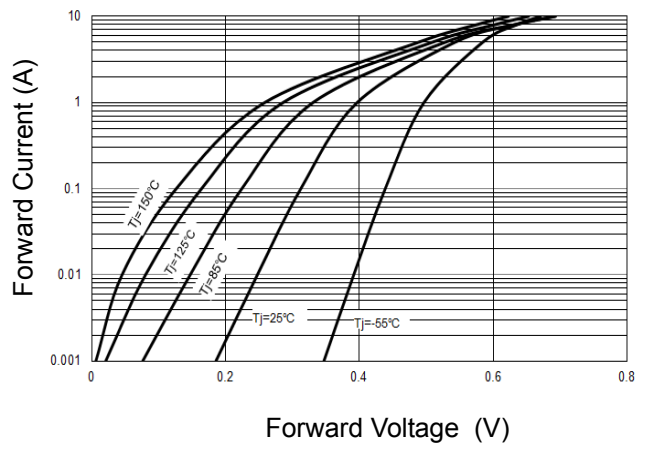


Fig 3. Average Forward Current Derating Curve

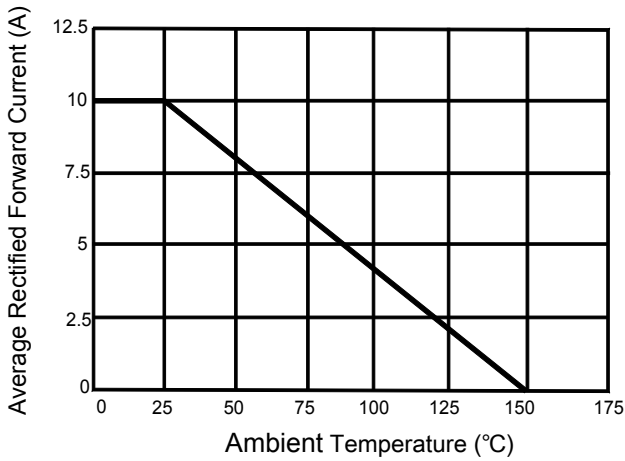
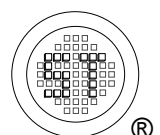
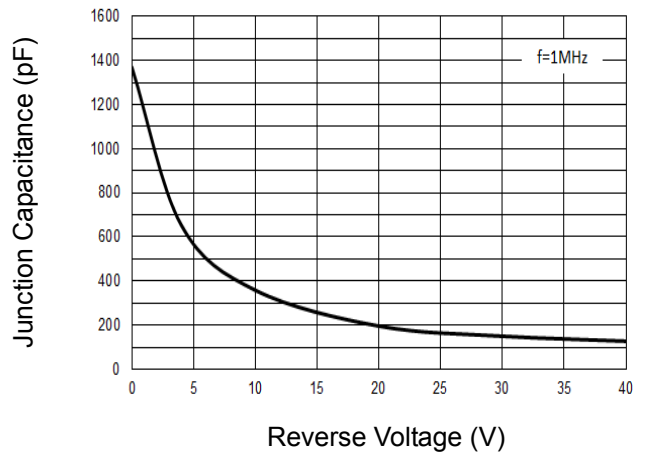


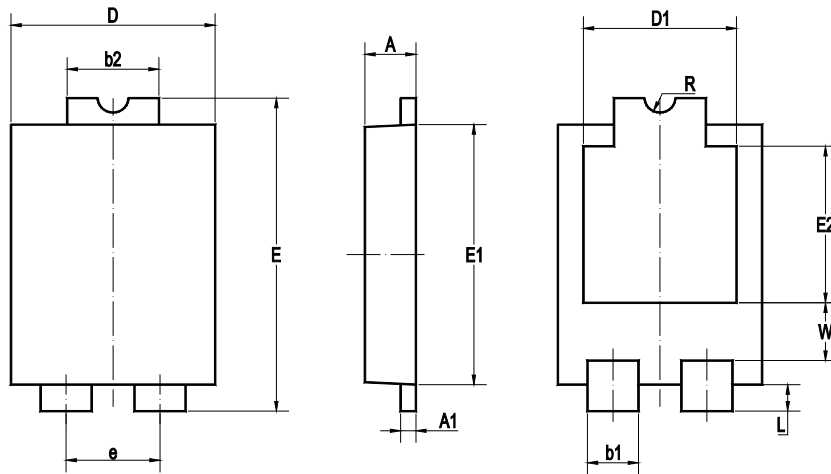
Fig 4. Junction Capacitance



SDB10100HB

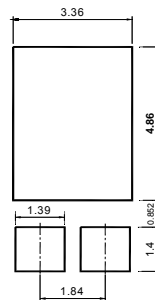
Package Outline Dimensions (Units: mm)

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	Typ.

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

- " SDB10100HB " = Part No.
 - " YYWW " = Date Code Marking
 - " Y " = Year (ex: 19 = 2019)
 - " W " = Week (ex: 09 = the 9th week of the year)
- Font type: Arial

