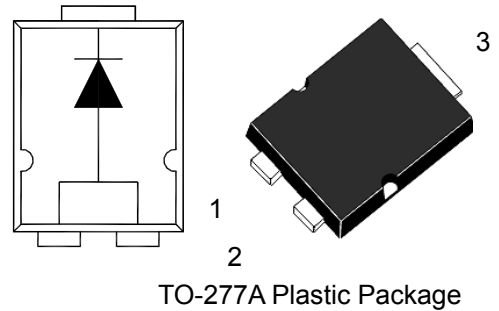


# SDB10100AF-AH

## Surface Mount Schottky Barrier Rectifier

### Features

- AEC-Q101 Qualified
- Low forward voltage drop
- Excellent high temperature stability
- Halogen and Antimony Free(HAF),RoHS compliant



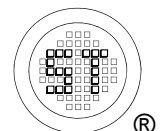
### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

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 ms)	$I_{FSM}$	180	A
Peak Repetitive Reverse Current at tp = 2 $\mu\text{s}$ , 1 kHz, $T_J = 38^\circ\text{C} \pm 2^\circ\text{C}$	$I_{RRM}$	1	A
Typical Thermal Resistance to Ambient <sup>1)</sup>	$R_{\theta JA}$	50	$^\circ\text{C}/\text{W}$
Typical Thermal Resistance to Lead	$R_{\theta JL}$	3	$^\circ\text{C}/\text{W}$
Operating Junction and Storage Temperature Range	$T_J, T_{stg}$	- 40 to + 150	$^\circ\text{C}$

<sup>1)</sup> Units mounted on recommended PCB 1 oz. pad layout

### 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 $I_F = 10 \text{ A}, T_J = 125^\circ\text{C}$	$V_F$	- - - -	0.506 0.624 0.457 0.602	- 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 $V_R = 100 \text{ V}, T_J = 125^\circ\text{C}$	$I_R$	- - - -	4.6 4 - -	- - 150 20	$\mu\text{A}$ mA $\mu\text{A}$ mA



# SDB10100AF-AH

## Electrical Characteristics Curves

Fig 1. Reverse Characteristics Curve

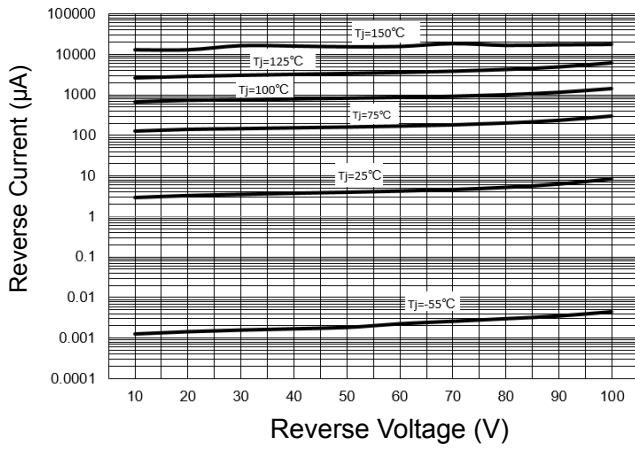


Fig 2. Forward Characteristics Curve

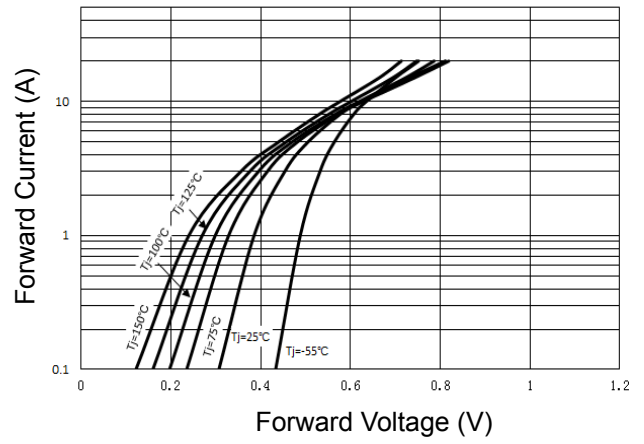


Fig 3. Junction Capacitance

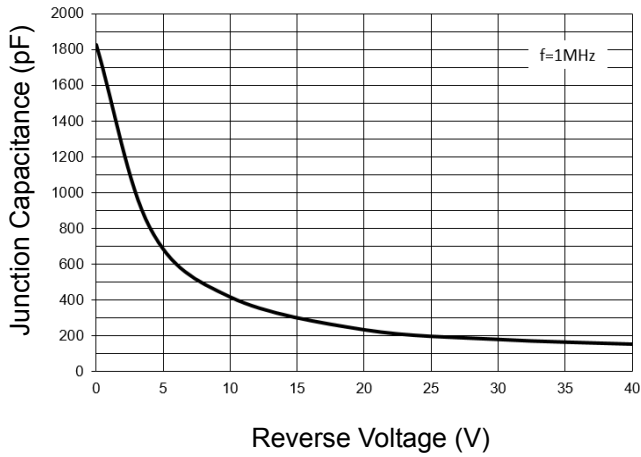
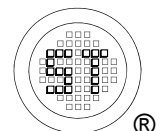
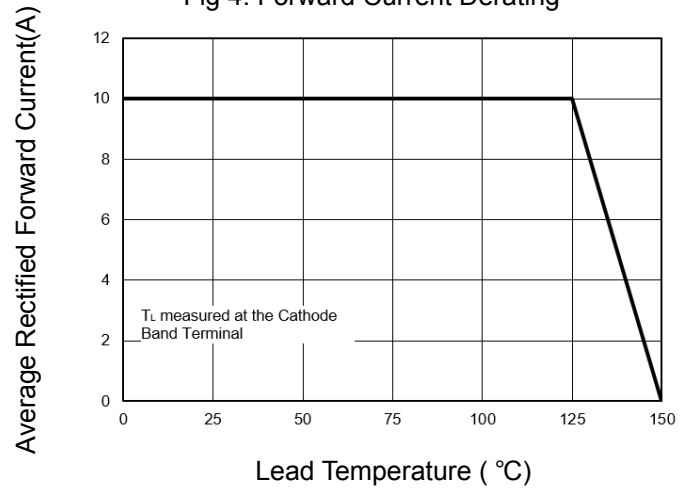


Fig 4. Forward Current Derating

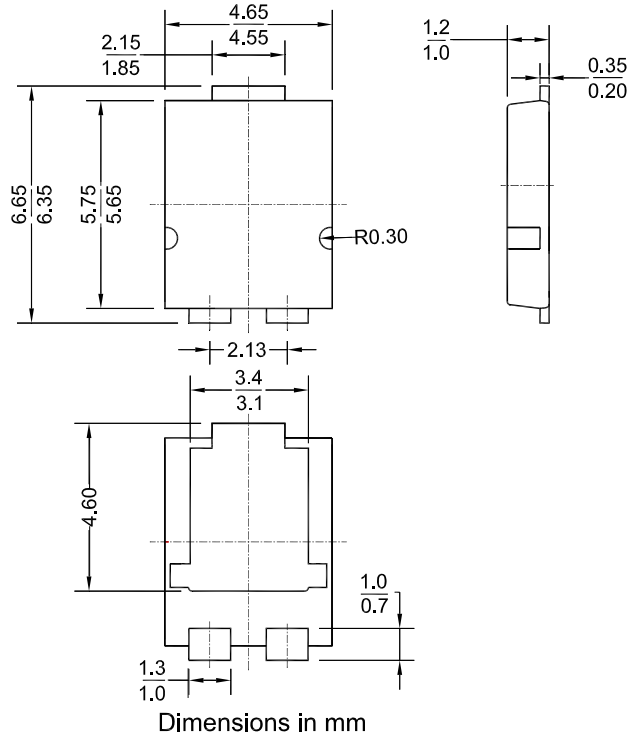


# SDB10100AF-AH

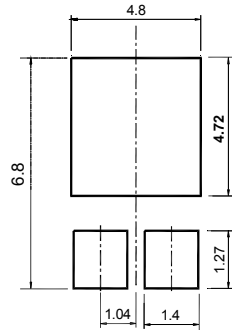
## PACKAGE OUTLINE

Plastic surface mounted package (Units: mm)

TO-277A



## Recommended Soldering Footprint



## Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
TO-277A	12	4 ± 0.1	0.157 ± 0.004	330	13	5,000

## Marking information

- "•" = HAF (Halogen and Antimony Free)
  - "SDB10100AF" = Part No.
  - "YYWW" = Date Code Marking
  - "Y" = Year (ex: 19 = 2019)
  - "W" = Week (ex: 09 = the 9th week of the year)
- Font type: Arial

