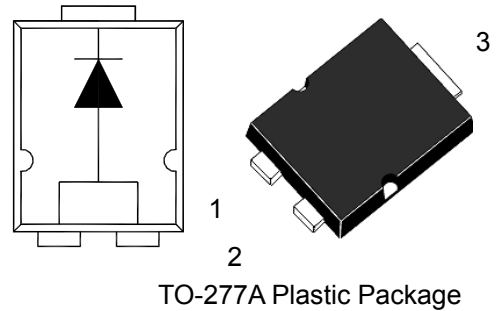


SDB10100AF

Surface Mount Schottky Barrier Rectifier

Features

- Low forward voltage drop
- Excellent high temperature stability



TO-277A Plastic Package

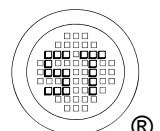
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

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
Typical Thermal Resistance to Ambient ¹⁾	$R_{\theta JA}$	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	$^\circ\text{C}$

¹⁾ 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	μA mA μA mA



Electrical Characteristics Curves

Fig 1. Reverse Characteristics Curve

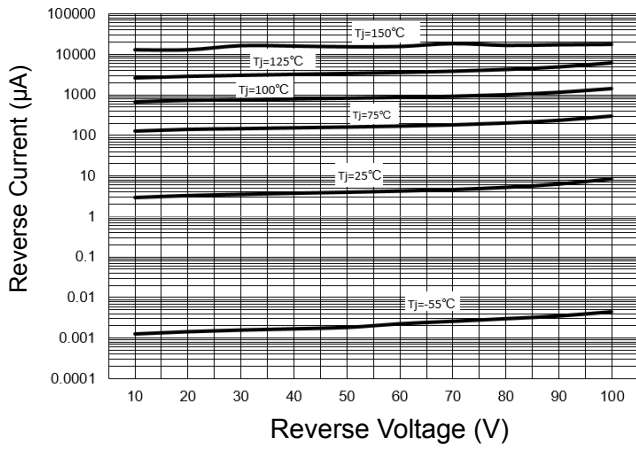


Fig 2. Forward Characteristics Curve

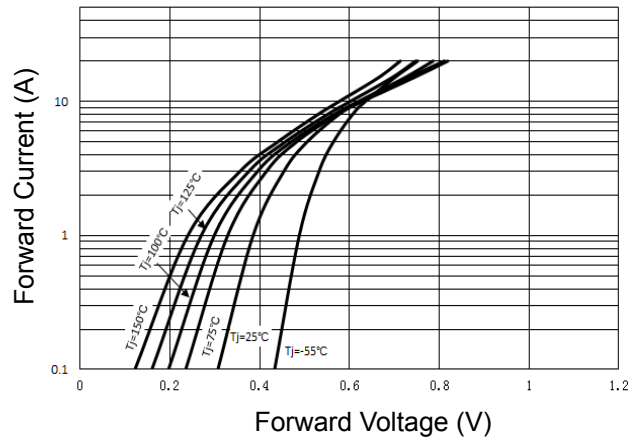


Fig 3. Junction Capacitance

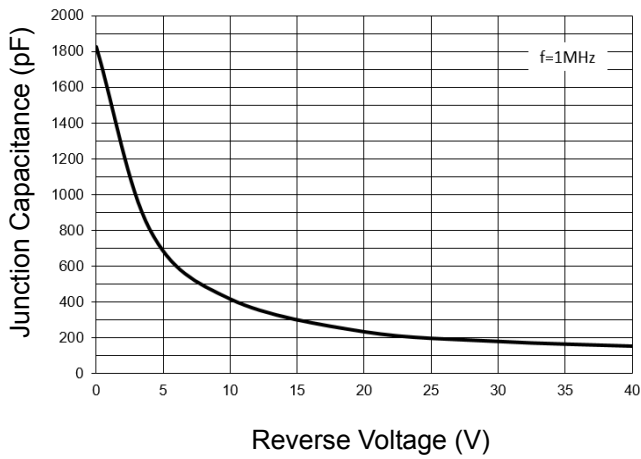
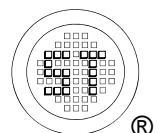
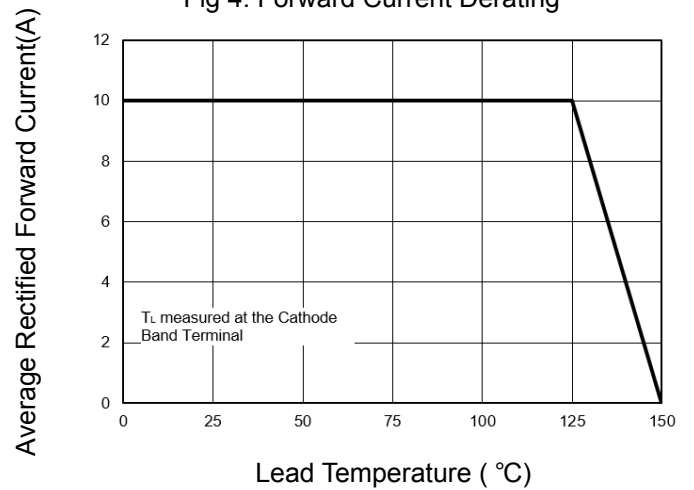


Fig 4. Forward Current Derating

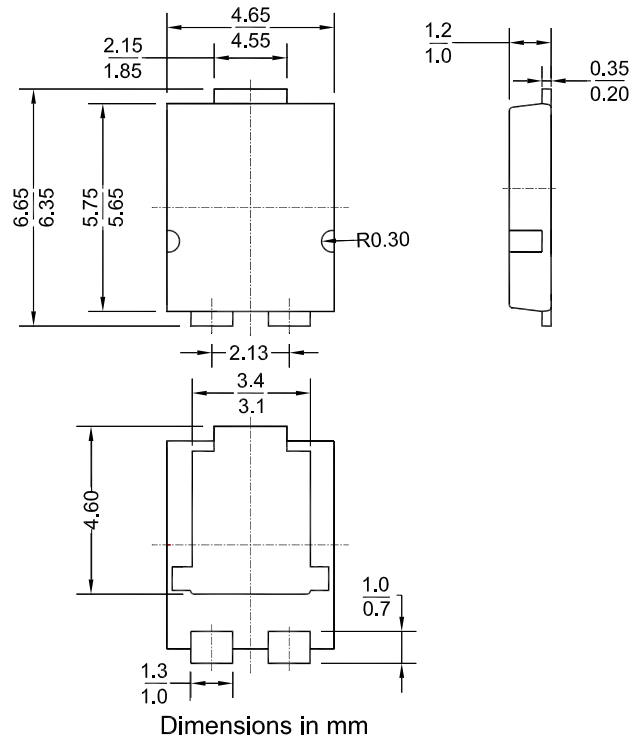


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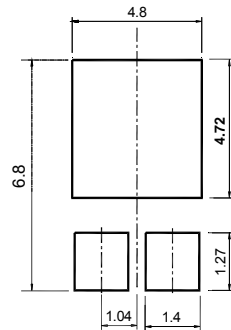
PACKAGE OUTLINE

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

" 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

