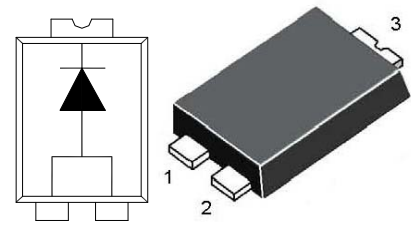


# SDB1045-HAF

## Surface Mount Schottky Barrier Rectifier

### Features

- High forward surge capability
- Ultra low forward voltage drop
- Excellent high temperature stability
- Halogen and Antimony Free(HAF), RoHS compliant



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
Thermal Resistance, Junction to Ambient <sup>1)</sup>	$R_{\theta JA}$	102	$^\circ\text{C/W}$
Operating Temperature Range	$T_J$	- 65 to + 150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 65 to + 175	$^\circ\text{C}$

<sup>1)</sup> 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 $V_R = 45 \text{ V}, T_J = 100^\circ\text{C}$ at $V_R = 45 \text{ V}, T_J = 150^\circ\text{C}$	$I_R$	-	0.45 18 100	mA

**TOP DYNAMIC**



ISO14001 : 2004 ISO 9001 : 2008 IECQ QC 080000  
Certificate No. 121505007 Certificate No. 50114012 Certificate No. E034100014002

Dated: 26/08/2015 Rev: 01

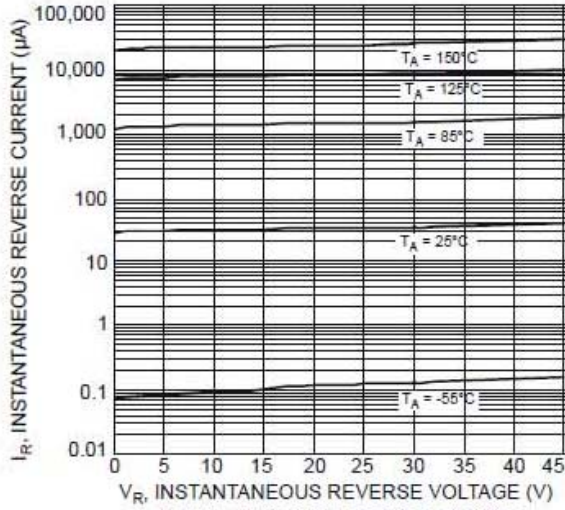


Figure 1 Typical Reverse Characteristics

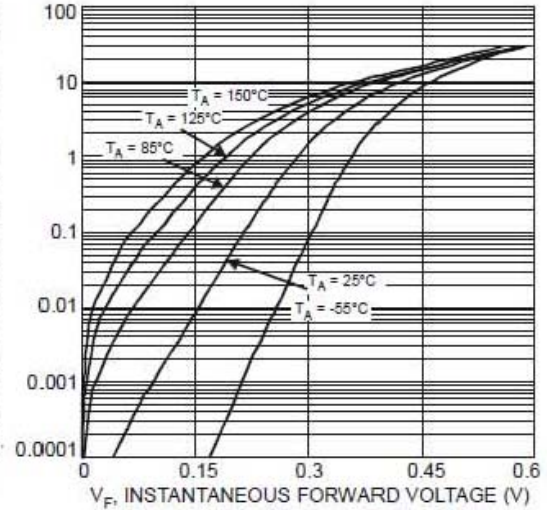


Figure 2 Typical Forward Characteristics

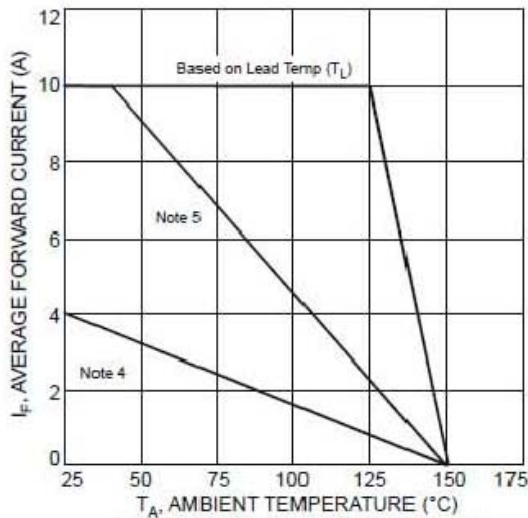
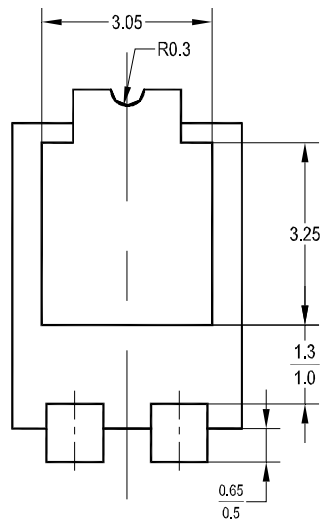
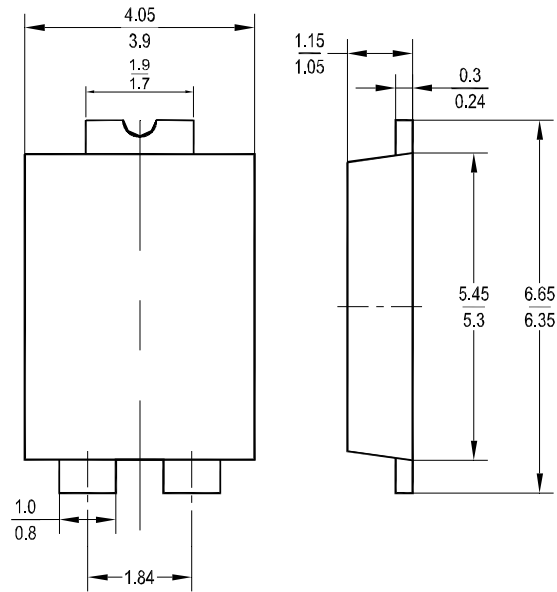


Figure 3 Forward Current Derating Curve

# SDB1045-HAF

## TO-277 PACKAGE OUTLINE



Dimensions in mm

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