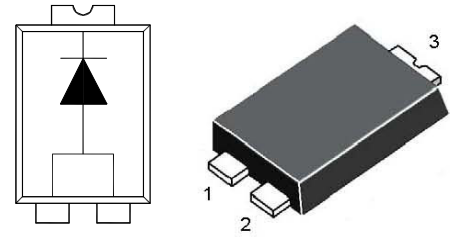


SDB1550

Surface Mount Schottky Barrier Rectifier

Features

- Ultra low forward voltage drop
- High efficiency operation



TO-277 Plastic Package

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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	50	V
Reverse Voltage	V_R	50	V
Average Rectified Forward Current	$I_{F(AV)}$	15	A
Non-repetitive Peak Forward Surge Current ($t = 8.3 \text{ ms}$)	I_{FSM}	275	A
Thermal Resistance, Junction to Ambient ¹⁾	$R_{\theta JA}$	97	$^\circ\text{C/W}$
Thermal Resistance, Junction to Ambient ²⁾	$R_{\theta JA}$	39	$^\circ\text{C/W}$
Thermal Resistance, Junction to Mount ³⁾	$R_{\theta JM}$	4	$^\circ\text{C/W}$
Operating Temperature Range	T_J	- 65 to + 150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 150	$^\circ\text{C}$

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

²⁾ FR-4 PCB 2OZ. Copper. Cathode pad dimensions 18.8 mm x 14.4 mm. Anode pad dimensions 5.6 mm x 14.4 mm

³⁾ Junction to Mount (Cathode Terminal)

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

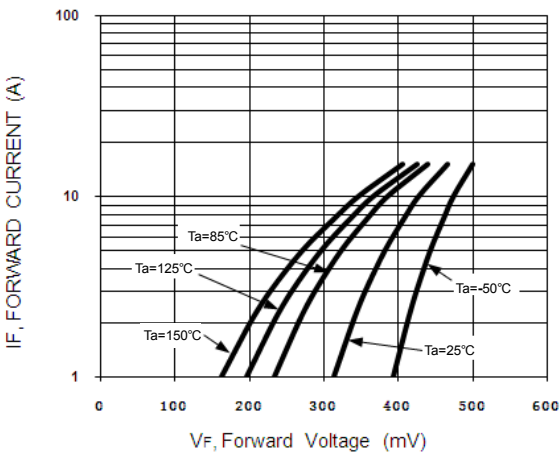
Parameter	Symbol	Typ.	Max.	Unit
Forward Voltage at $I_F = 5 \text{ A}$ at $I_F = 5 \text{ A}, T_a = 125^\circ\text{C}$ at $I_F = 7.5 \text{ A}$ at $I_F = 7.5 \text{ A}, T_a = 125^\circ\text{C}$ at $I_F = 10 \text{ A}$ at $I_F = 10 \text{ A}, T_a = 125^\circ\text{C}$ at $I_F = 15 \text{ A}$ at $I_F = 15 \text{ A}, T_a = 125^\circ\text{C}$	V_F	0.38 0.29 0.41 0.34 0.43 0.37 0.47 0.42	- - - - 0.48 - 0.51 0.49	V
Reverse Current at $V_R = 50 \text{ V}$ at $V_R = 50 \text{ V}, T_a = 125^\circ\text{C}$	I_R	- 45	0.5 100	mA
Total Capacitance at $V_R = 25 \text{ V}, f = 1 \text{ MHz}$	C_J	330	-	pF

TOP DYNAMIC

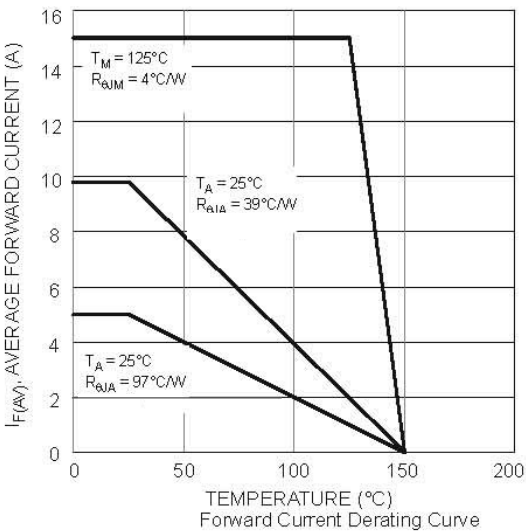
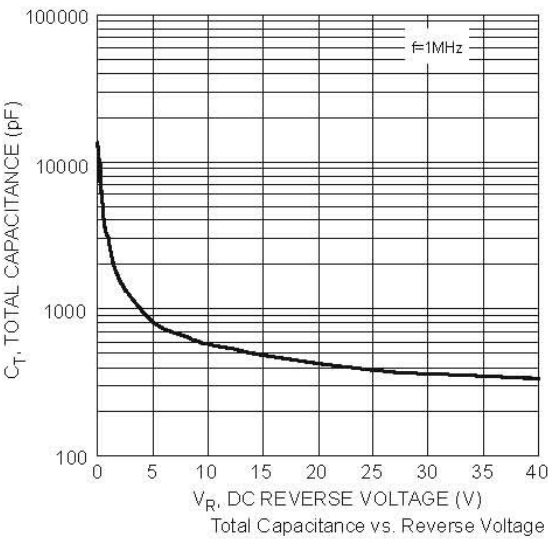
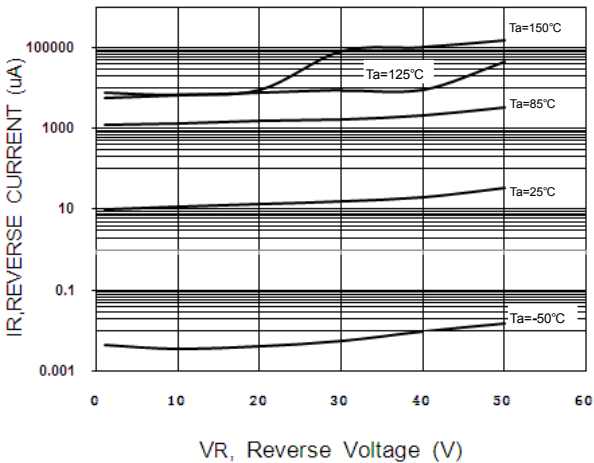


Dated: 08/07/2015 Rev: 07

Typical Forward Characteristics

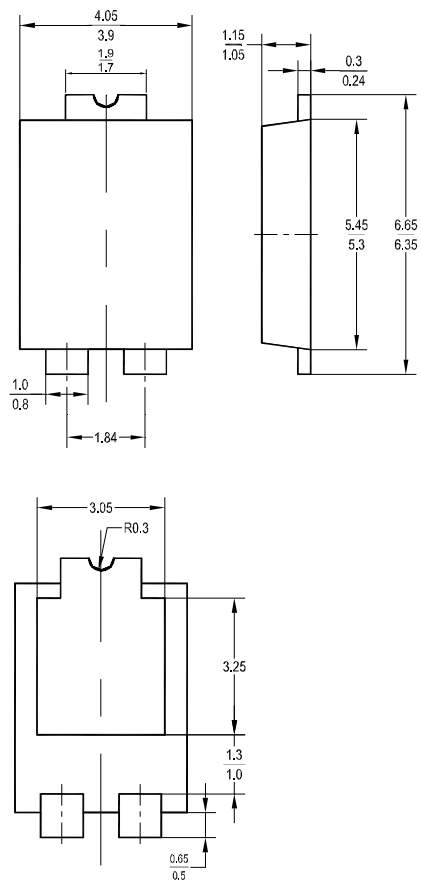


Typical Reverse Characteristics



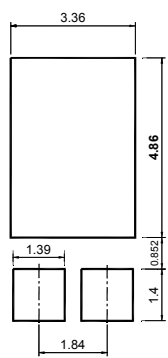
SDB1550

TO-277 PACKAGE OUTLINE



Dimensions in mm

RECOMMENDED SOLDERING FOOTPRINT



TO-277

Packing information

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

TOP DYNAMIC

