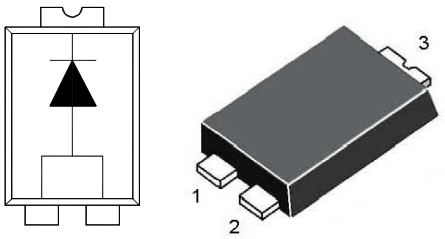
SDB1550

Surface Mount Schottky Barrier Rectifier



TO-277 Plastic Package

Features

- Ultra low forward voltage drop
- High efficiency operation

Absolute Maximum Ratings (T_a = 25℃)

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 ms)	I_{FSM}	275	A
Thermal Resistance, Junction to Ambient [1)]	$R_{\theta JA}$	97	℃/W
Thermal Resistance, Junction to Ambient [2)]	$R_{\theta JA}$	39	℃/W
Thermal Resistance, Junction to Mount [3)]	$R_{\theta JM}$	4	℃/W
Operating Temperature Range	T_J	- 65 to + 150	℃
Storage Temperature Range	T_{stg}	- 65 to + 150	℃

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

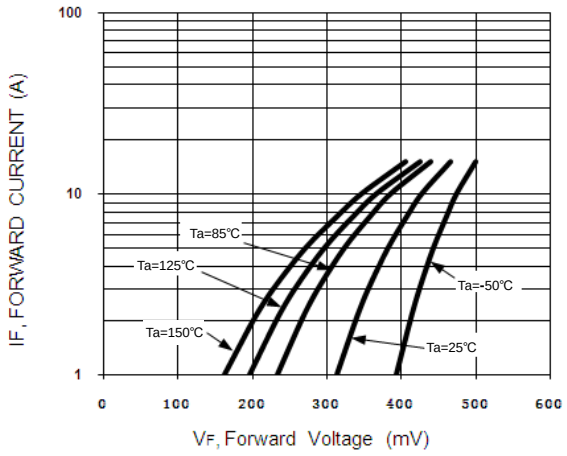
[2)] FR-4 PCB 2OZ. Copper. Cathode pad dimensions 18.8 mm x 14.4 mm.Anode pad dimensions 5.6 mm x 14.4 mm

[3)] Junction to Mount(Cathode Terminal)

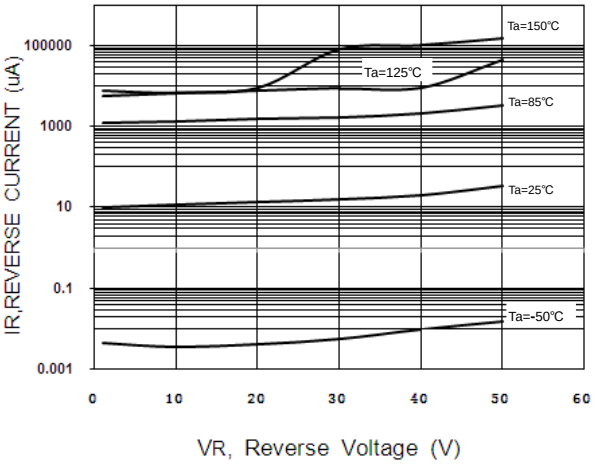
Characteristics at T_a = 25℃

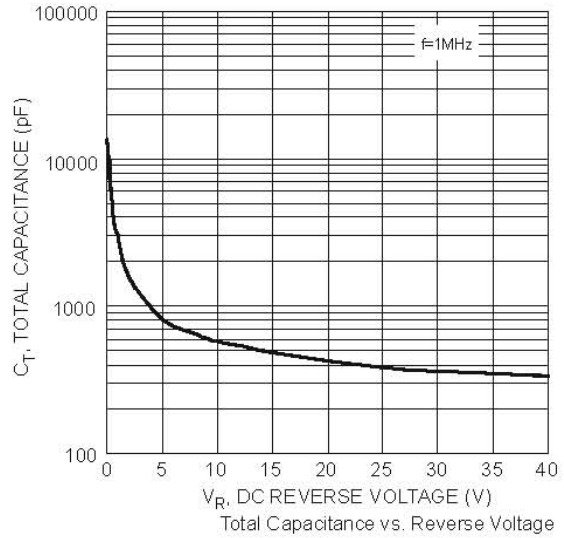
Parameter	Symbol	Typ.	Max.	Unit
Forward Voltage				
at I_F = 5 A		0.38	-	
at I_F = 5 A,T_a = 125℃		0.29	-	
at I_F = 7.5 A		0.41	-	
at I_F = 7.5 A,T_a = 125℃	V_F	0.34	-	V
at I_F = 10 A		0.43	0.48	
at I_F = 10 A,T_a= 125℃		0.37	-	
at I_F = 15 A		0.47	0.51	
at I_F = 15 A,T_a = 125℃		0.42	0.49	
Reverse Current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

Typical Forward Characteristics

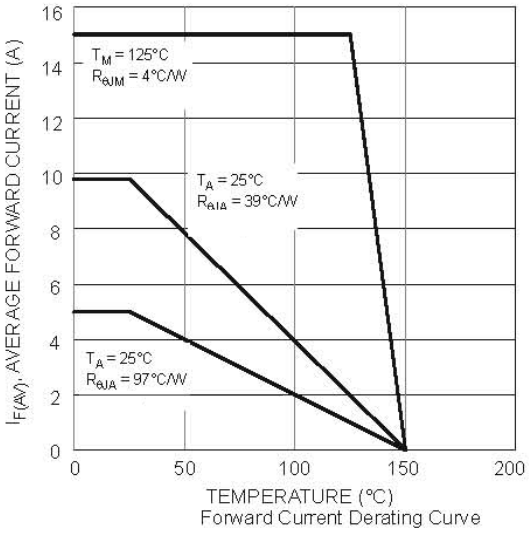


Typical Reverse Characteristics



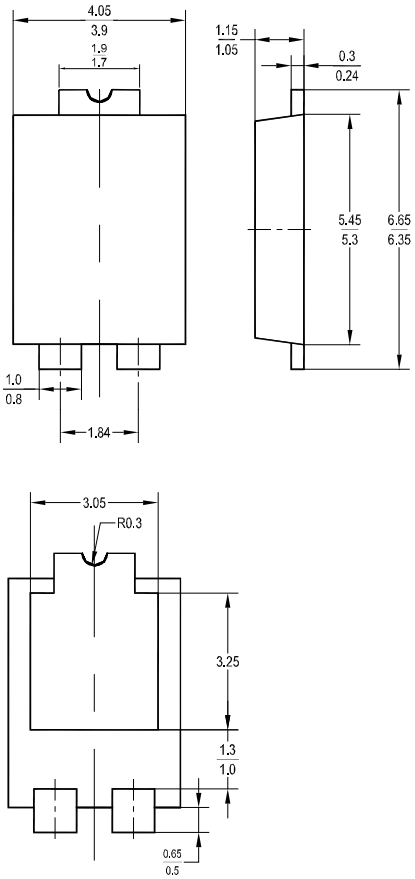


Total Capacitance vs. Reverse Voltage



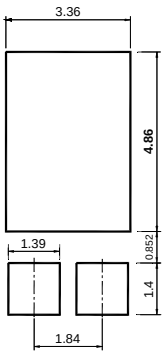
Forward Current Derating Curve

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