

SV1580VB

ULTRA LOW VF SCHOTTKY BARRIER RECTIFIER

Voltage

80 V

Current

15 A

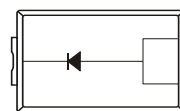
Features

- Ideal for automated placement
- Ultra low forward voltage drop, low power loss
- High efficiency operation
- Low thermal resistance
- Ultra thin profile package for space constrained utilization
- Easy pick and place package suitable for automated handling
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

Mechanical Data

- Case: TO-277B package
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- Weight: 0.0038 ounces, 0.1088 grams.
- Marking: Part number

TO-277B



Maximum Ratings And Electrical Characteristics (T_A=25°C unless otherwise noted)

PARAMETER		SYMBOL	LIMIT	UNIT
Maximum repetitive peak reverse voltage		V _{RRM}	80	V
Maximum rms voltage		V _{RMS}	56	V
Storage temperature range		V _R	80	V
Maximum average forward rectified current		I _{F(AV)}	15	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load		I _{FSM}	250	A
Typical thermal resistance	(Note 1)	R _{θJC}	3.5	°C/W
	(Note 2)	R _{θJA}	110	
Operating junction temperature range		T _J	-55 to +150	°C
Storage temperature range		T _{STG}	-55 to +150	°C

Note : 1. Mounted on a 10cm*10cm*0.5mm copper pad area.

2. Mounted on a FR4 PCB, single-sided copper, mini pad.

SV1580VB

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION		MIN.	TYP.	MAX.	UNITS
Breakdown voltage	V_{BR}	$I_R=0.5\text{mA}$	$T_J=25^{\circ}\text{C}$	80	-	-	V
Instantaneous forward voltage	V_F	$I_F=1\text{A}$	$T_J=25^{\circ}\text{C}$	-	0.39	-	V
		$I_F=5\text{A}$		-	0.5	-	
		$I_F=10\text{A}$		-	0.58	-	
		$I_F=15\text{A}$		-	0.67	0.72	
		$I_F=1\text{A}$	$T_J=125^{\circ}\text{C}$	-	0.27	-	V
		$I_F=5\text{A}$		-	0.42	-	
		$I_F=10\text{A}$		-	0.52	-	
Reverse current	I_R	$V_R=56\text{V}$	$T_J=25^{\circ}\text{C}$	-	7	-	μA
		$V_R=80\text{V}$	$T_J=25^{\circ}\text{C}$ $T_J=125^{\circ}\text{C}$	- -	- 13	100 -	μA mA

SV1580VB

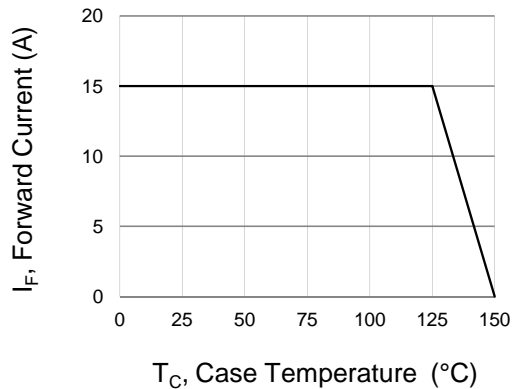


Fig.1 Forward Current Derating Curve

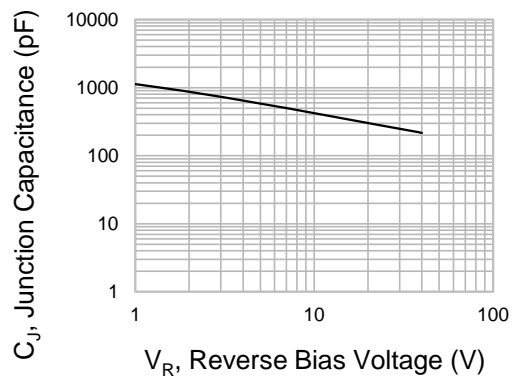


Fig.2 Typical Junction Capacitance

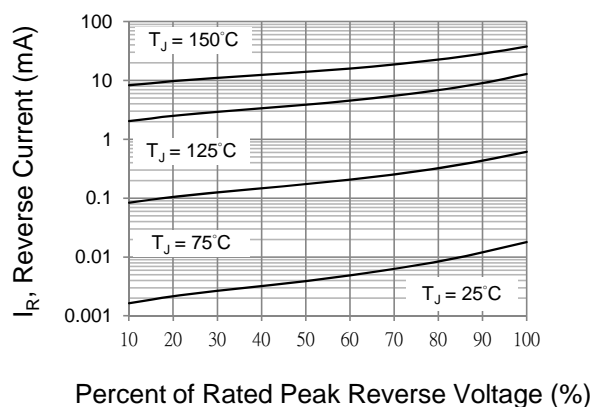


Fig.3 Typical Reverse Characteristics

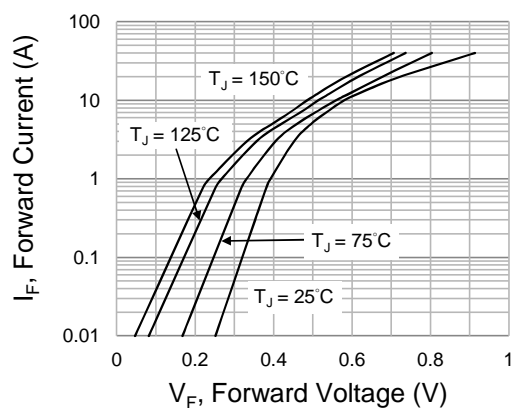


Fig.4 Typical Forward Characteristics

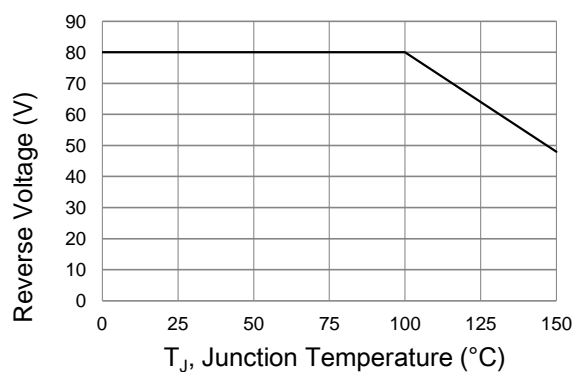


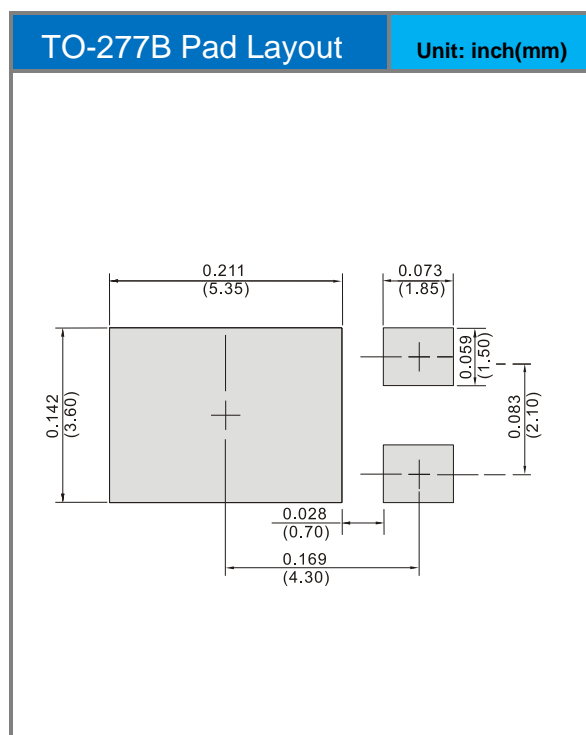
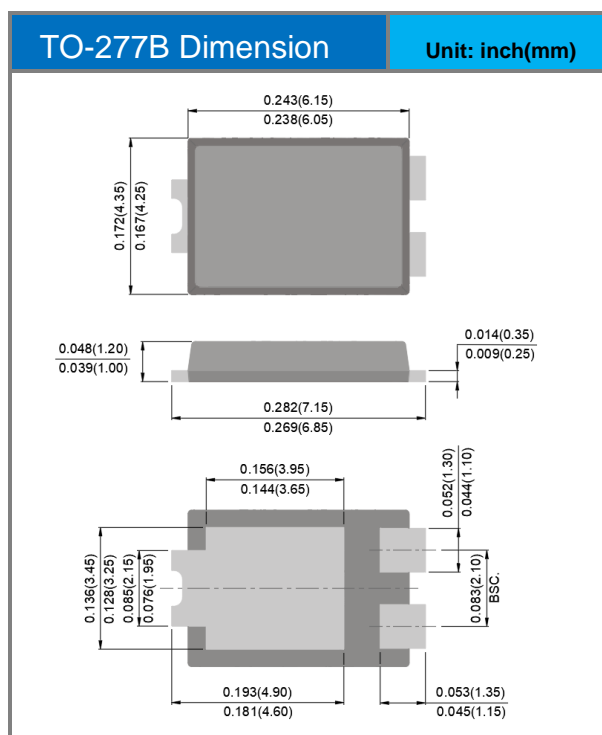
Fig.5 Operating Temperature Derating Curve

SV1580VB

Product and Packing Information

Part No.	Package Type	Packing Type	Marking
SV1580VB	TO-277B	5K pcs / 13" reel	SV1580VB

Packaging Information & Mounting Pad Layout



SV1580VB

Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.