

# SVT8100VB

## ULTRA LOW VF SCHOTTKY BARRIER RECTIFIER

<b>Voltage</b>	<b>100 V</b>	<b>Current</b>	<b>8 A</b>
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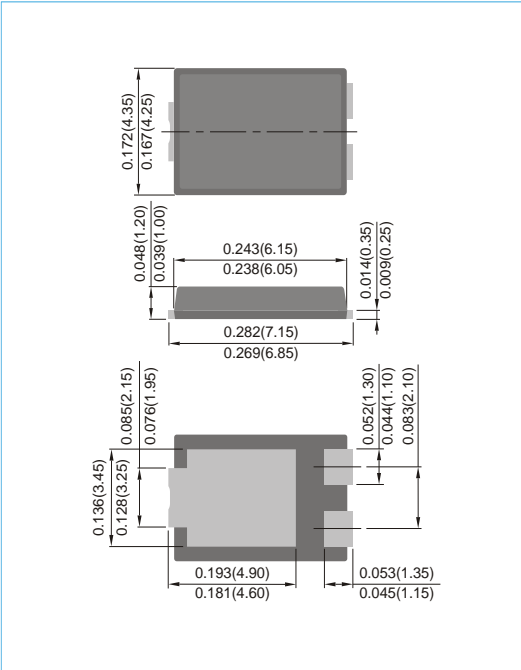
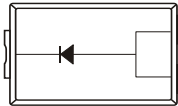
**TO-277B** Unit : inch(mm)

### 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



### Maximum Ratings And Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNIT
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	100	V
Maximum rms voltage	V <sub>RMS</sub>	70	V
Maximum dc blocking voltage	V <sub>R</sub>	100	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	8	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	150	A
Typical thermal resistance	(Note 1) R <sub>θJA</sub>	110	°C/W
	(Note 2) R <sub>θJC</sub>	3	
Operating junction temperature range	T <sub>J</sub>	-55 to +150	°C
Storage temperature range	T <sub>STG</sub>	-55 to +150	°C

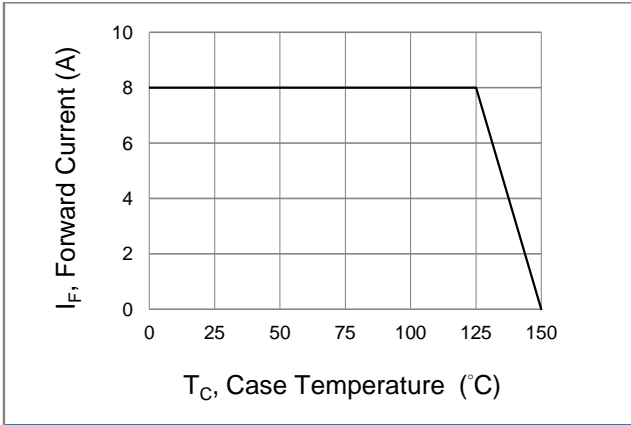
Note : 1. Mounted on a FR4 PCB, single-sided copper, mini pad.  
2. Mounted on a 10cm\*10cm\*1mm copper pad area

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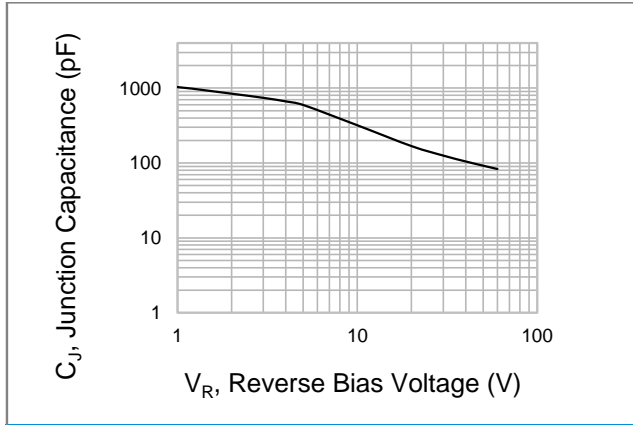
Electrical Characteristics ( $T_A=25^\circ\text{C}$  unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION		MIN.	TYP.	MAX.	UNITS
Breakdown voltage	$V_{BR}$	$I_R=0.5\text{mA}$	$T_J=25^\circ\text{C}$	100	-	-	V
Instantaneous forward voltage	$V_F$	$I_F=1\text{A}$	$T_J=25^\circ\text{C}$	-	0.4	-	V
		$I_F=5\text{A}$		-	0.55	-	
		$I_F=8\text{A}$		-	0.62	0.67	
		$I_F=1\text{A}$	$T_J=125^\circ\text{C}$	-	0.3	-	V
		$I_F=5\text{A}$		-	0.51	-	
Reverse current	$I_R$	$V_R=70\text{V}$	$T_J=25^\circ\text{C}$	-	10	-	$\mu\text{A}$
		$V_R=100\text{V}$	$T_J=25^\circ\text{C}$	-	-	50	$\mu\text{A}$
			$T_J=125^\circ\text{C}$	-	7	-	$\text{mA}$

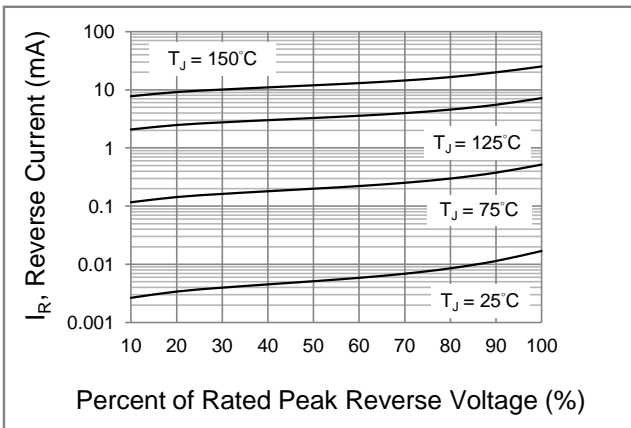
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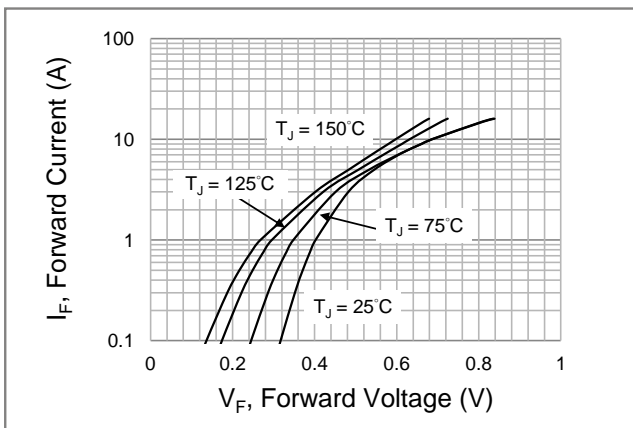
**Fig.1 Forward Current Derating Curve**



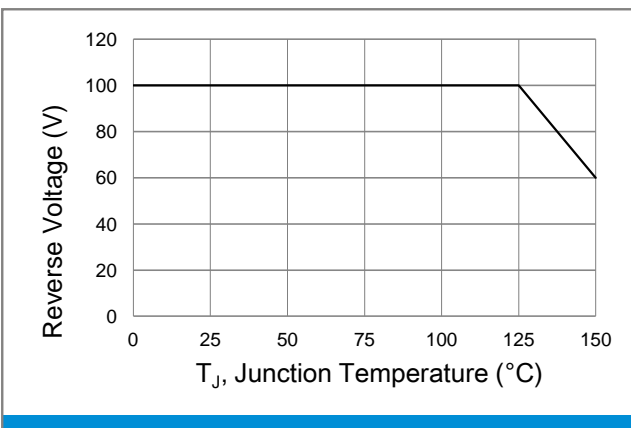
**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



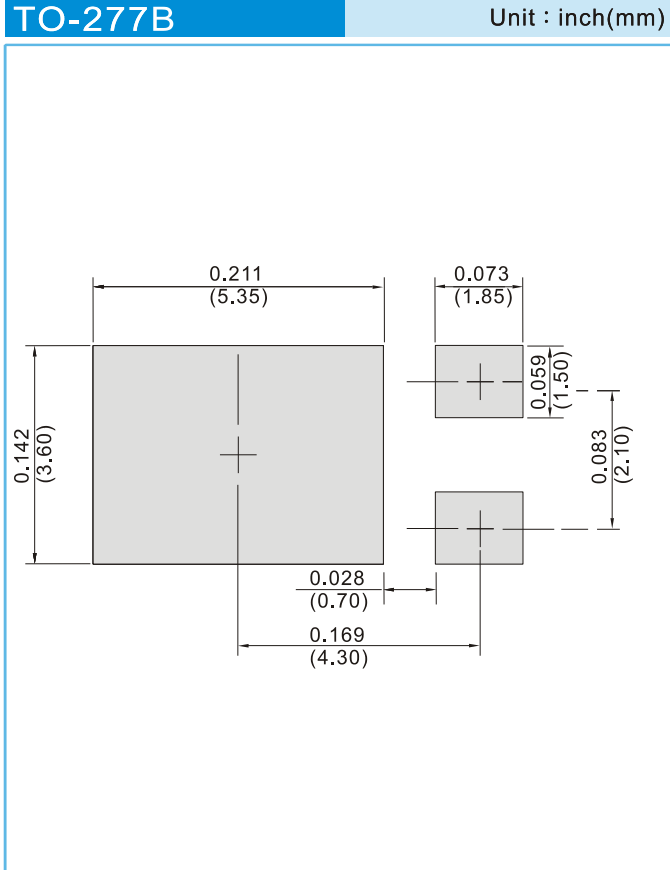
**Fig.4 Typical Forward Characteristics**



**Fig.5 Operating Temperature Derating Curve**

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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information  
T/R – 5K per 13" plastic Reel

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