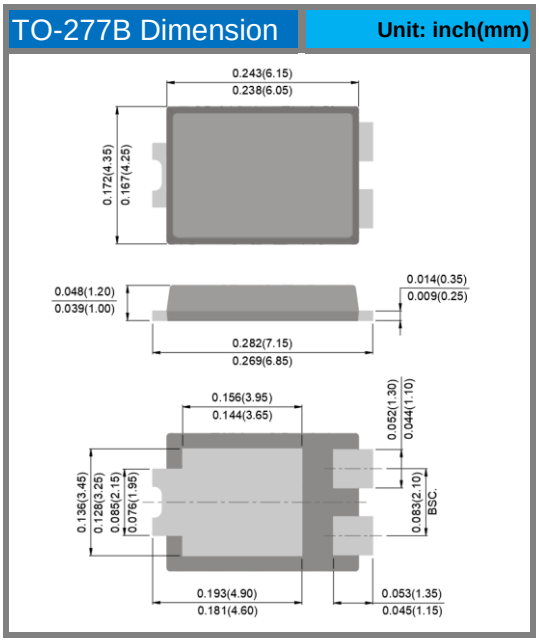
SVT10120VB

ULTRA LOW VF SCHOTTKY BARRIER RECTIFIER

Voltage	120 V	Current	10 A

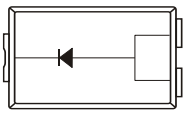


Features

- 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



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

PARAMETER		SYMBOL	LIMIT	UNIT
Maximum repetitive peak reverse voltage		V_{RRM}	120	V
Maximum rms voltage		V_{RMS}	84	V
Maximum dc blocking voltage		V_R	120	V
Maximum average forward rectified current		$I_{F(AV)}$	10	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load		I_{FSM}	150	A
Typical thermal resistance	(Note 1)	$R_{\theta JA}$	110	°C/W
	(Note 2)	$R_{\theta JC}$	3	
Operating junction temperature range		T_J	-55 to +150	°C
Storage temperature range		T_{STG}	-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°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION		MIN.	TYP.	MAX.	UNITS
Breakdown voltage	V_{BR}	I_R=0.5mA	T_J=25°C	120	-	-	V
Instantaneous forward voltage	V_F	I_F=1A	T_J=25°C	-	0.47	-	V
		I_F=5A		-	0.69	-	
		I_F=10A		-	0.75	0.8	
		I_F=1A	T_J=125°C	-	0.38	-	V
		I_F=5A		-	0.54	-	
Reverse current	I_R	V_R=96V	T_J=25°C	-	3	-	μA
		V_R=120V	T_J=25°C	-	-	25	μA
			T_J=125°C	-	5	-	mA

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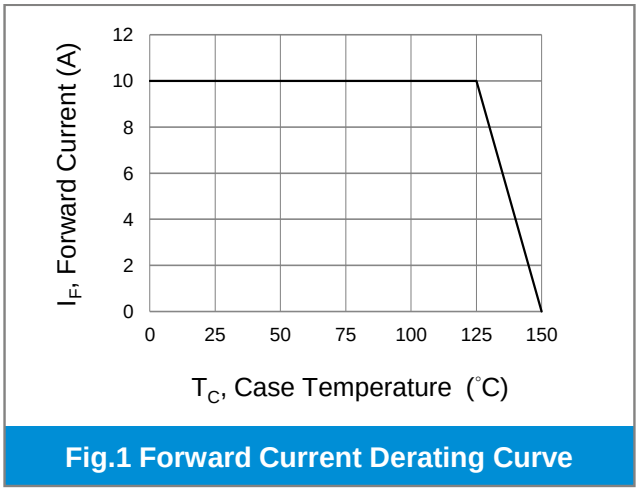

Fig.1 Forward Current Derating Curve

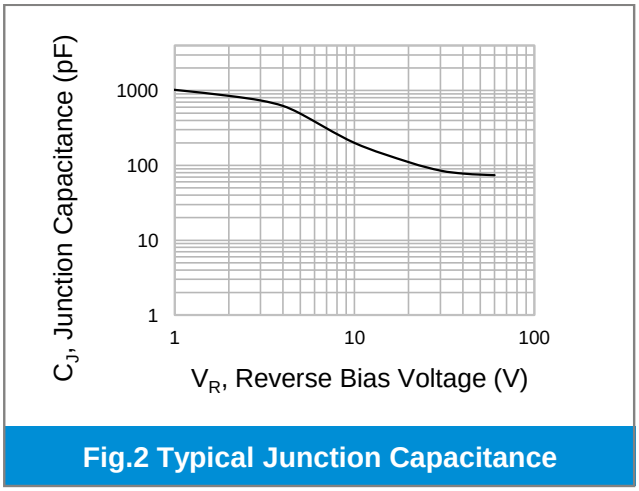

Fig.2 Typical Junction Capacitance

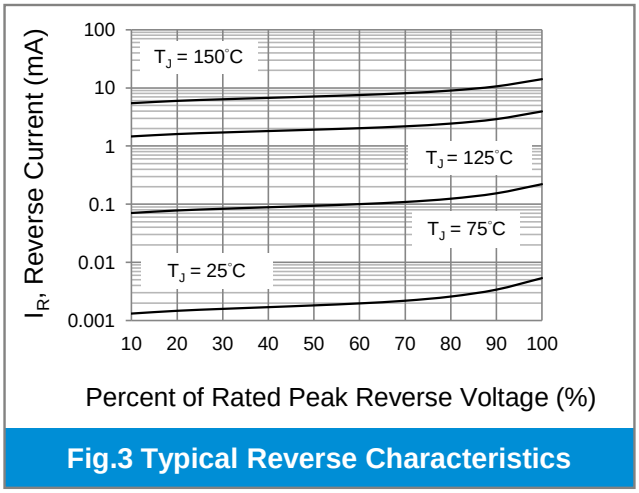

Fig.3 Typical Reverse Characteristics

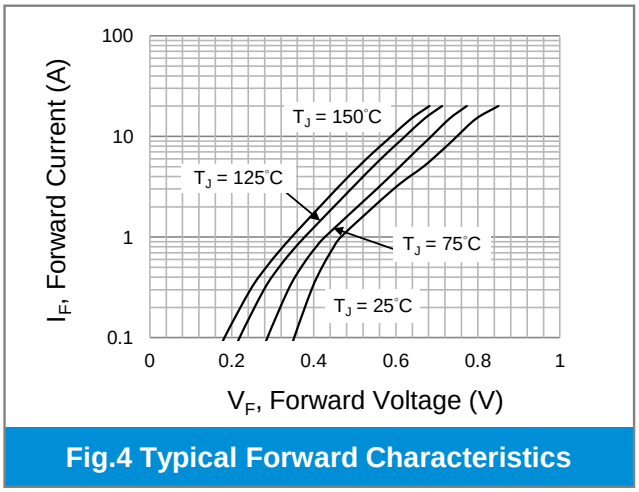

Fig.4 Typical Forward Characteristics

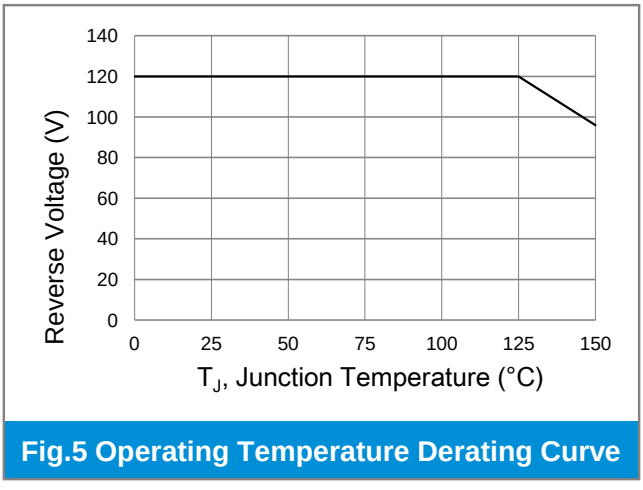

Fig.5 Operating Temperature Derating Curve

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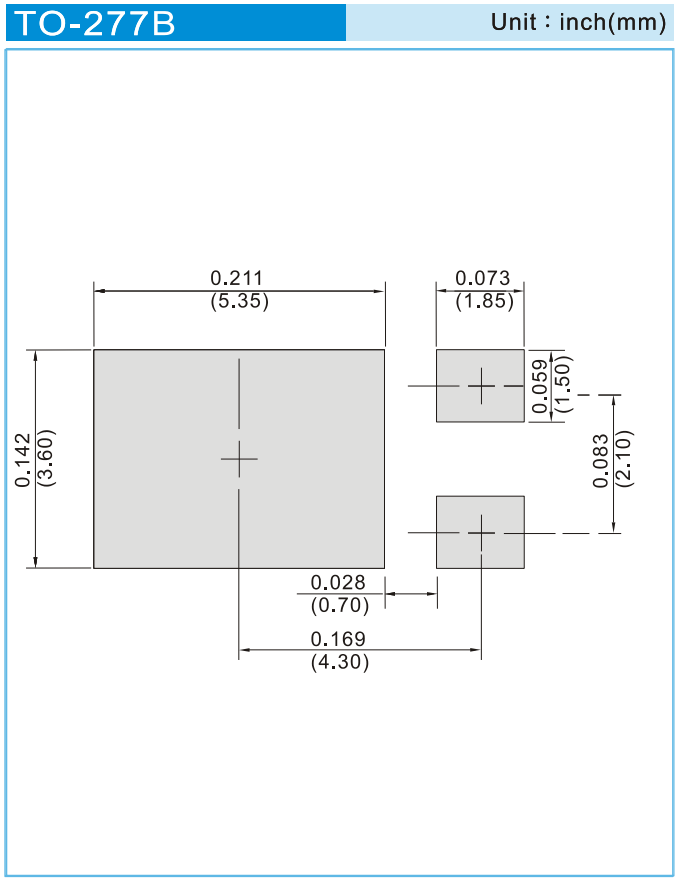
MOUNTING PAD LAYOUT



ORDER INFORMATION

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

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