SVT10100UB

EXTREME LOW VF SCHOTTKY BARRIER RECTIFIER

| **Voltage** | **100 V** | **Current** | **10 A** |

TO-277B   Unit : inch(mm)

Features

- Ideal for automated placement
- Extreme 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
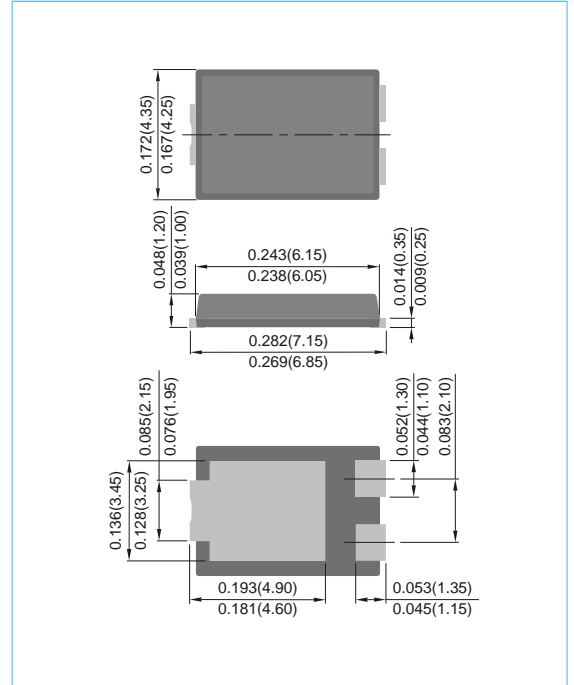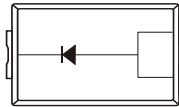
Maximum Ratings And Electrical Characteristics (T_A=25°C unless otherwise noted)

| PARAMETER		SYMBOL	LIMIT	UNIT
Maximum repetitive peak reverse voltage		V_{RRM}	100	V
Maximum rms voltage		V_{RMS}	70	V
Maximum dc blocking voltage		V_R	100	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	^{o}C/W
	(Note 2)	$R_{\theta JC}$	3	
Operating junction temperature range		T_J	-55 to +150	^{o}C
Storage temperature range		T_{STG}	-55 to +150	^{o}C

Note : 1. Mounted on a FR4 PCB, single-sided copper, mini pad.

  2. Mounted on a 10cm*10cm*1mm copper pad area

Electrical Characteristics (T$_A$=25°C unless otherwise noted)

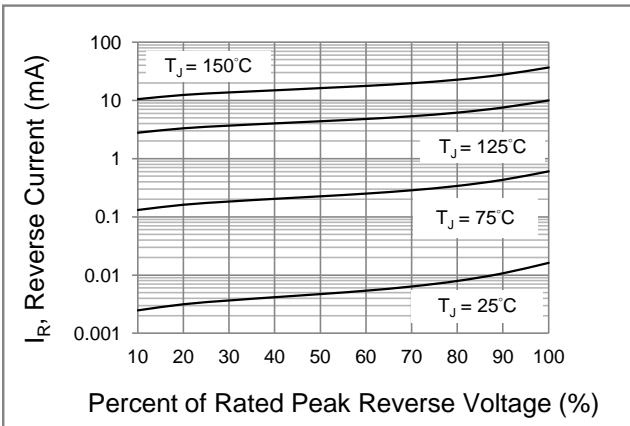| PARAMETER	SYMBOL	TEST CONDITION		MIN.	TYP.	MAX.	UNITS
Breakdown voltage	V$_{BR}$	I$_R$=0.5mA	T$_J$=25°C	100	-	-	V
Instantaneous forward voltage	V$_F$	I$_F$=1A	T$_J$=25°C	-	0.39	-	V
		I$_F$=5A		-	0.52	-	
		I$_F$=10A		-	0.63	0.67	
		I$_F$=1A	T$_J$=125°C	-	0.28	-	V
		I$_F$=5A		-	0.46	-	
Reverse current	I$_R$	V$_R$=70V	T$_J$=25°C	-	10	-	μA
		V$_R$=100V	T$_J$=25°C	-	-	60	μA
			T$_J$=125°C	-	10	-	mA
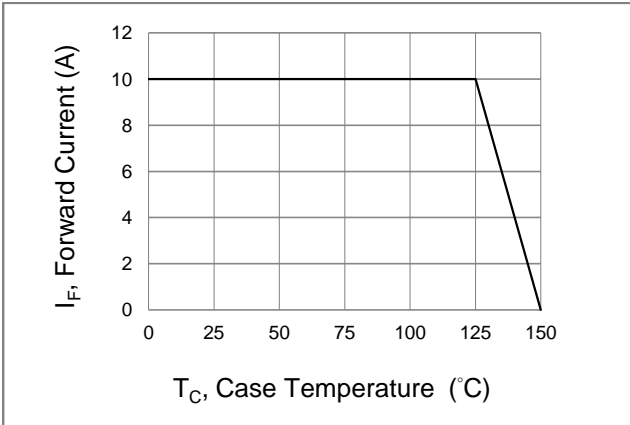
SVT10100UB

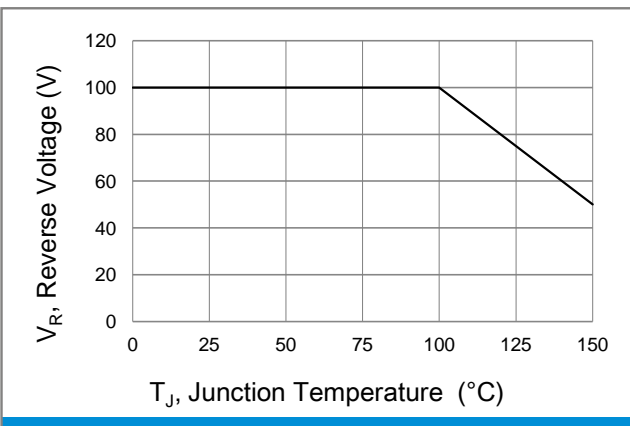**Fig.1 Forward Current Derating Curve**
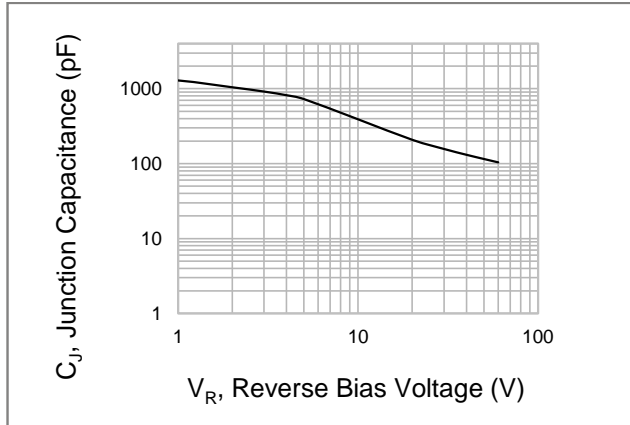
Fig.2 Typical Junction Capacitance

Fig.3 Typical Reverse Characteristics
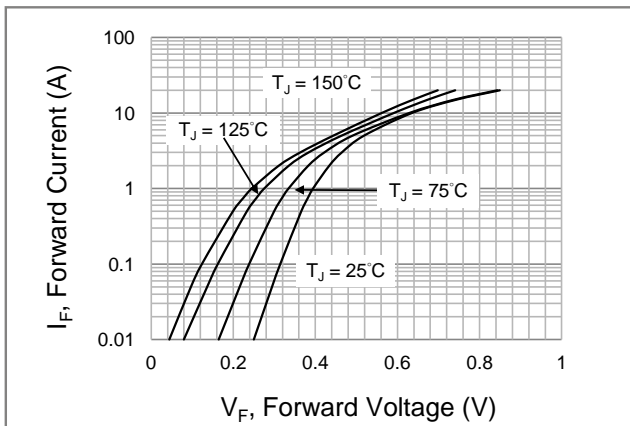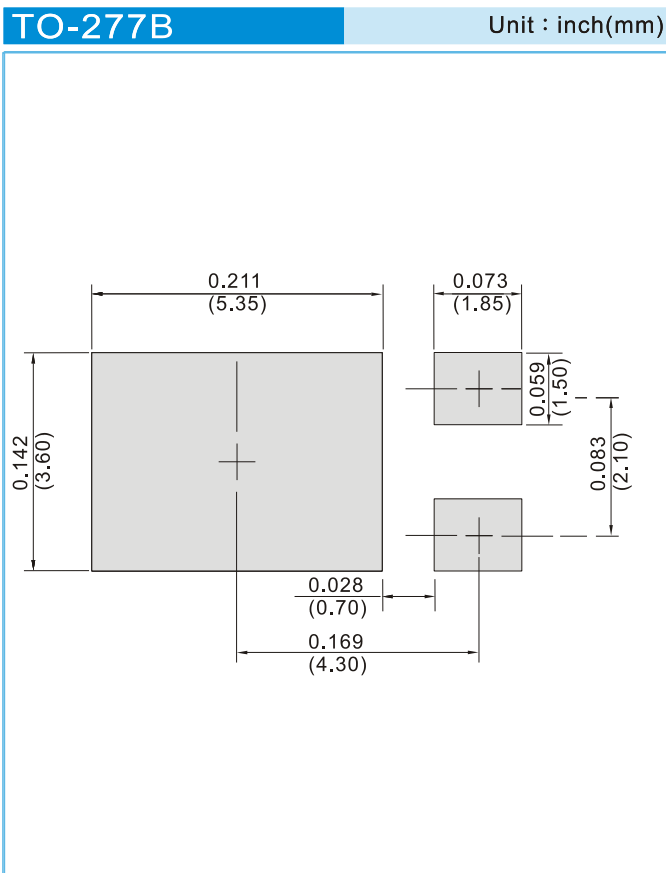

Fig.4 Typical Forward Characteristics

Fig.5 Operating Temperature Derating Curve

MOUNTING PAD LAYOUT

TO-277B   Unit : inch(mm)

0.211
(5.35)

0.073
(1.85)

0.059
(1.50)

0.142
(3.60)

0.083
(2.10)

0.028
(0.70)

0.169
(4.30)

ORDER INFORMATION

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

SVT10100UB

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