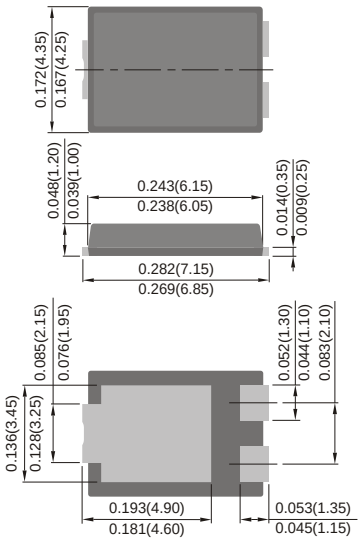
SVT20100UB

EXTREME LOW VF SCHOTTKY BARRIER RECTIFIER

Voltage	100 V	Current	20 A

TO-277B

Unit : inch(mm)

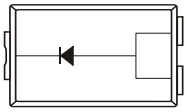


Features

- 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		$I_{F(AV)}$	20	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load		I_{FSM}	250	A
Typical thermal resistance	(Note 1)	$R_{\theta JA}$	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	100	-	-	V
Instantaneous forward voltage	V_F	I_F=1A	T_J=25°C	-	0.36	-	V
		I_F=5A		-	0.44	-	
		I_F=20A		-	0.61	0.66	
		I_F=1A	T_J=125°C	-	0.23	-	V
		I_F=5A		-	0.36	-	
Reverse current	I_R	V_R=70V	T_J=25°C	-	25	-	μA
		V_R=100V	T_J=25°C	-	-	80	μA
			T_J=125°C	-	20	-	mA

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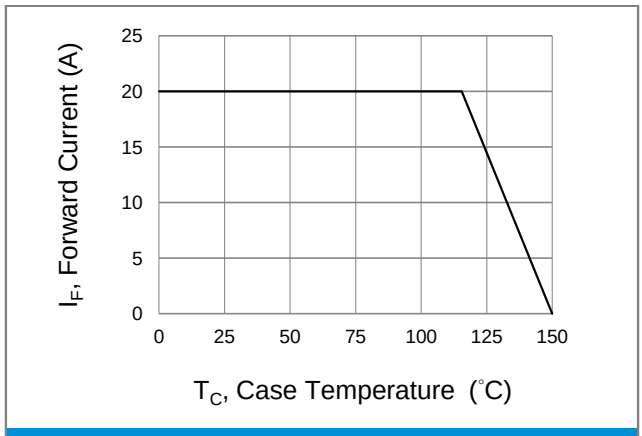

Fig.1 Forward Current Derating Curve

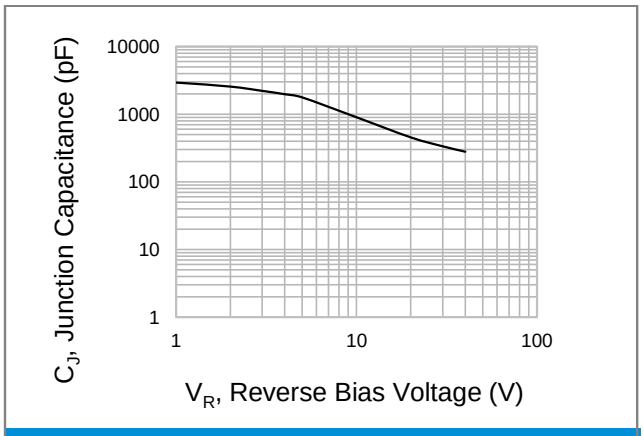

Fig.2 Typical Junction Capacitance

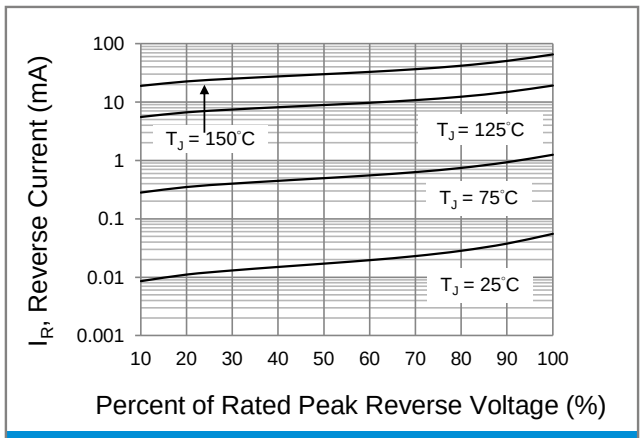

Fig.3 Typical Reverse Characteristics

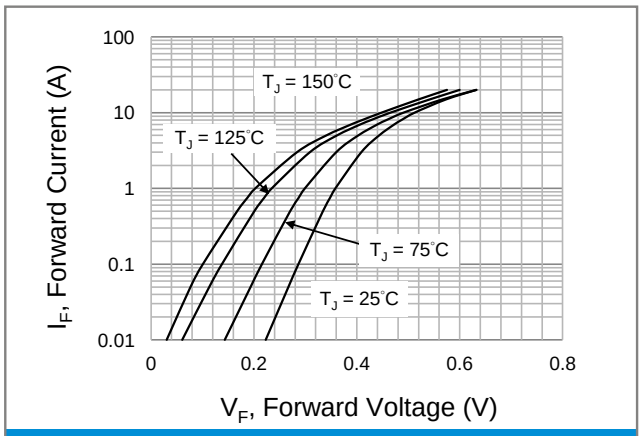

Fig.4 Typical Forward Characteristics

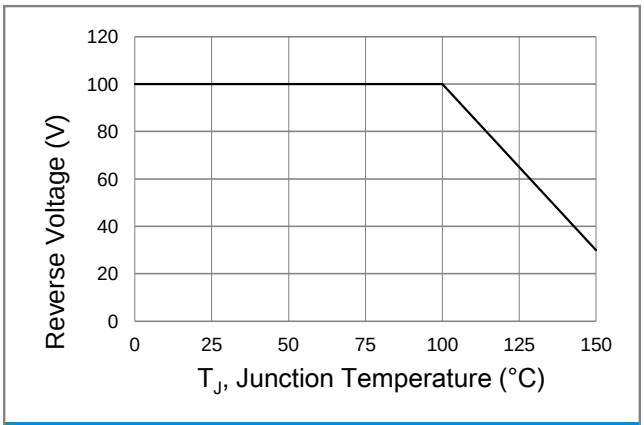

Fig.5 Operating Temperature Derating Curve

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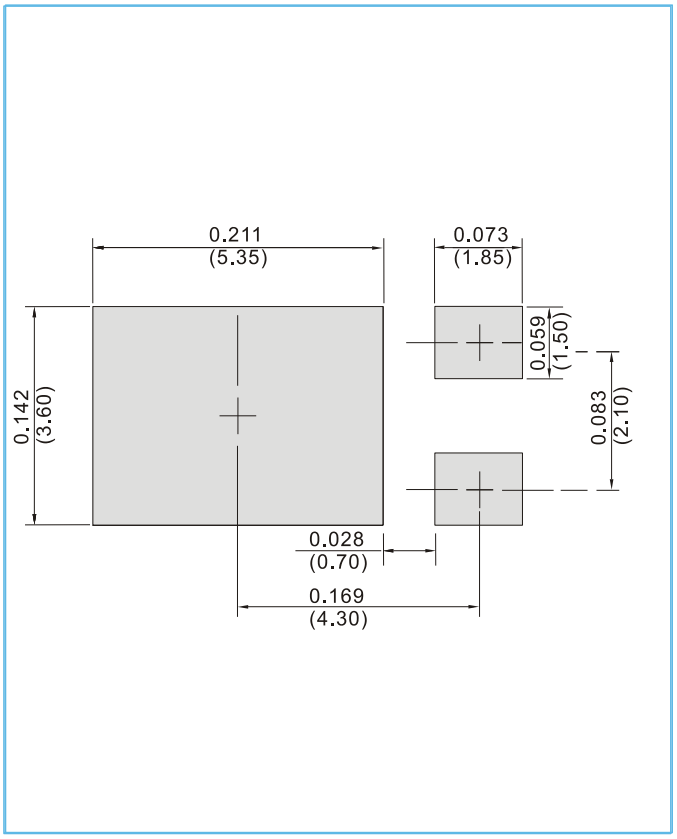
MOUNTING PAD LAYOUT

TO-277B Unit : inch(mm)



ORDER INFORMATION

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

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Part No_packing code_Version

SVT20100UB_R2_00001

For example :

RB500V-40_R2_00001

- Serial number
- Version code means HF
- Packing size code means 13"
- Packing type means T/R

Part No.

Packing Code XX				Version Code XXXXX		
Packing type	1st Code	Packing size code	2nd Code	HF or RoHS	1st Code	2nd~5th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			

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