



SVT12100V

ULTRA LOW VF SCHOTTKY RECTIFIER

VOLTAGE 100 Volt **CURRENT** 12 Ampere

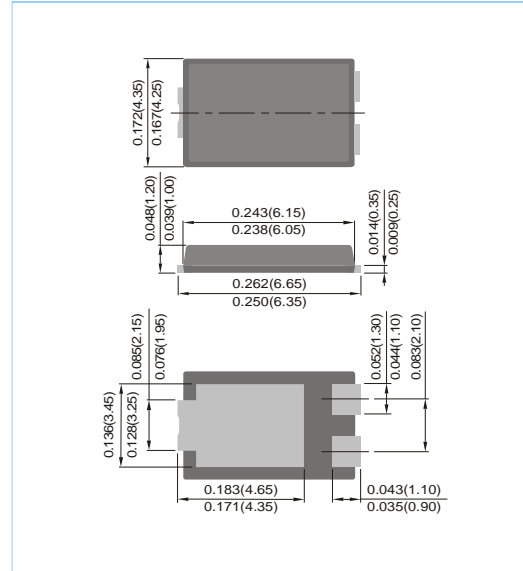
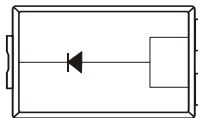
TO-277 Unit : inch(mm)

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
- 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-277, Plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Weight : 0.0037 ounces, 0.1073 grams
- Marking : Part number



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

PARAMETER	SYMBOL	VALUE	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	V
Maximum RMS Voltage	V_{RMS}	70	V
Maximum DC Blocking Voltage	V_R	100	V
Maximum Average Rectified Output Current	$I_{F(AV)}$	12	A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	200	A
Typical Junction Capacitance ($V_R=4V$, $f=1\text{MHz}$)	C_J	1200	pF
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	3	$^{\circ}\text{C/W}$
(Note 2)	$R_{\theta JA}$	110	
Operating Junction Temperature Range And Storage Temperature Range	T_J, T_{STG}	-55 to + 150	$^{\circ}\text{C}$

NOTES :

1. Mounted on a FR4 PCB, single-sided copper, with 10cm*10cm*0.5mm copper pad area
2. Mounted on a FR4 PCB, single-sided copper, mini pad.



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ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT	
Breakdown voltage	V _{BR}	I _R =0.5mA	100	-	-	V	
Instantaneous forward voltage	V _F	I _F =1A	-	0.38	-	V	
		I _F =5A	-	0.48	-		
		I _F =12A	-	0.61	0.67		
		I _F =1A	-	0.26	-	V	
I _F =5A	-	0.42	-				
I _F =12A	-	0.57	-				
Reverse current	I _R	V _R =70V	-	10.6	-	μA	
			T _J =25°C	-	7.5	-	mA
		V _R =100V	-	-	100	-	μA
			T _J =25°C	-	14	-	mA
		T _J =125°C	-	-	-	μA	
		T _J =125°C	-	-	-	mA	



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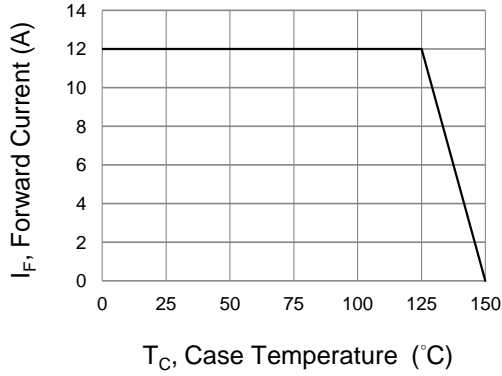


Fig.1 Forward Current Derating Curve

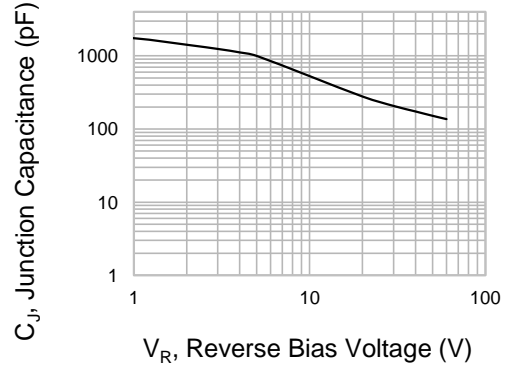


Fig.2 Typical Junction Capacitance

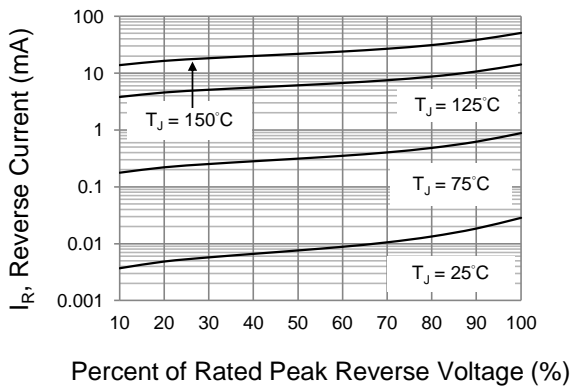


Fig.3 Typical Reverse Characteristics

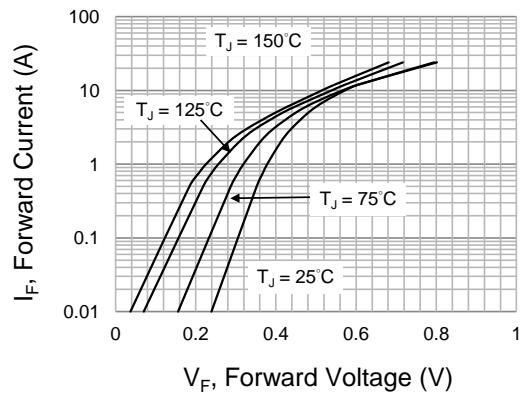


Fig.4 Typical Forward Characteristics

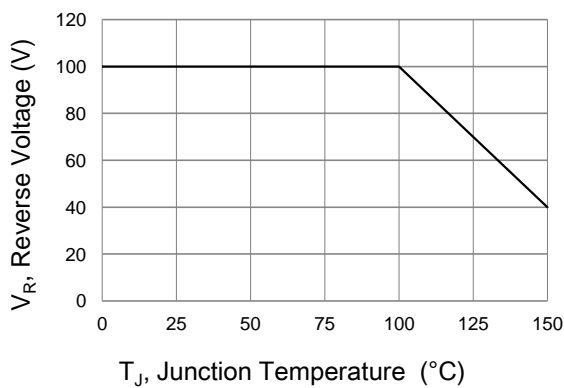
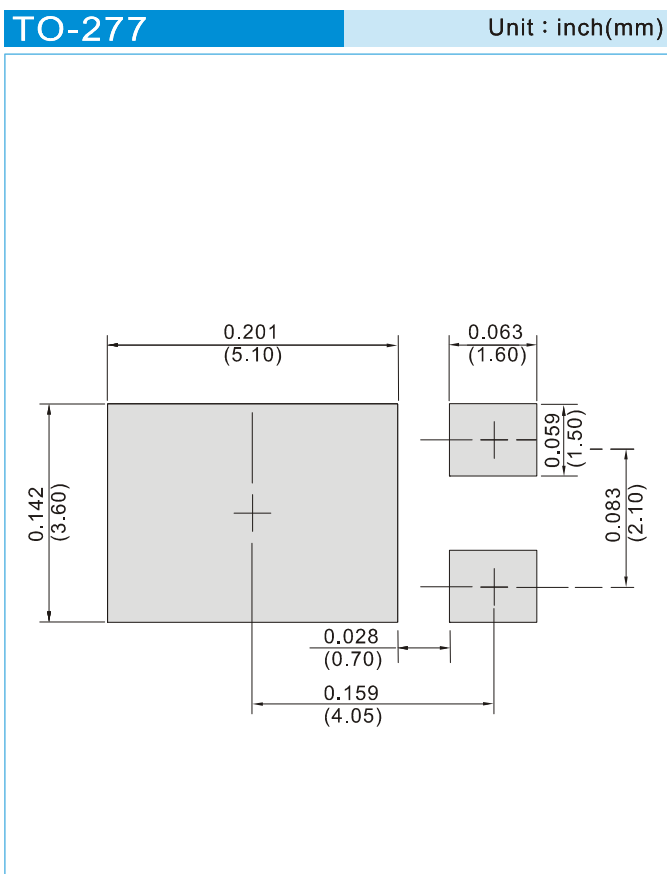


Fig.5 Operating Temperature Derating Curve



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MOUNTING PAD LAYOUT



ORDER INFORMATION

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



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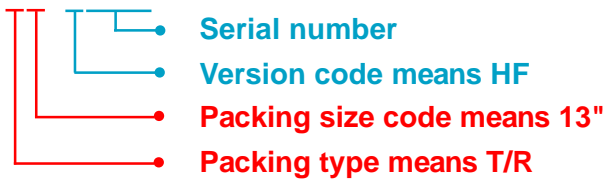
Part No_packing code_Version

SVT12100V_R2_00001

For example :

RB500V-40_R2_00001

Part No.



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd -5 th 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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