

SVC12120V

ULTRA LOW VF SCHOTTKY RECTIFIER

VOLTAGE 120 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 2.0
- Green molding compound as per IEC 61249 standard

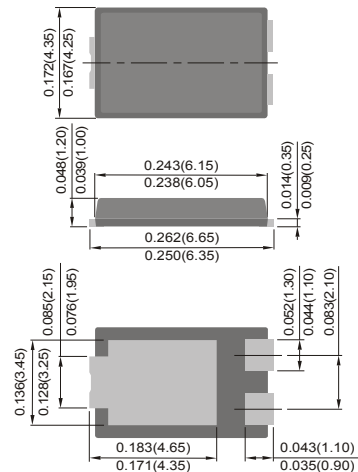
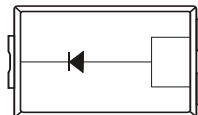
MECHANICAL DATA

Case : TO-277, Plastic

Terminals : Solderable per MIL-STD-750, Method 2026

Weight : 0.00324 ounces, 0.092 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}	120	V
Maximum RMS Voltage	V_{RMS}	85	V
Maximum DC Blocking Voltage	V_R	120	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 Thermal Resistance (Note 2)	$R_{\theta JA}$	110	$^{\circ}\text{C/W}$
(Note 1)	$R_{\theta JC}$	3	$^{\circ}\text{C/W}$
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, mini pad.

2.Mounted on 10cm*10cm*0.5mm copper pad area



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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 T _A =25°C	120	-	-	V
Instantaneous forward voltage	V _F	I _F =1A T _A =25°C	-	0.4	-	V
		I _F =6A T _A =25°C	-	0.59	-	
		I _F =12A T _A =25°C	-	0.71	0.77	
		I _F =1A T _A =125°C	-	0.29	-	V
Reverse current	I _R	V _R =96V T _A =25°C	-	10	-	μA
		V _R =120V T _A =25°C T _A =125°C	- -	- 35	100 -	μA mA

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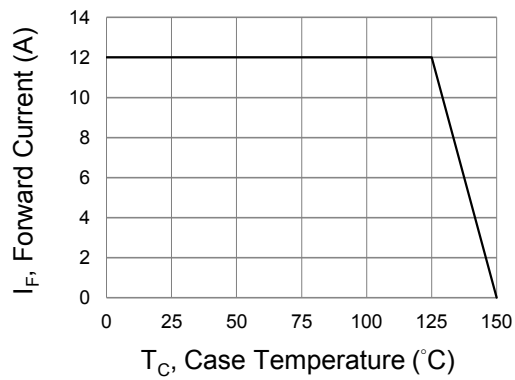


Fig.1 Forward Current Derating Curve

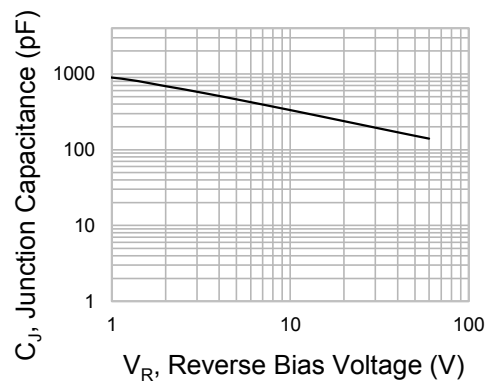


Fig.2 Typical Junction Capacitance

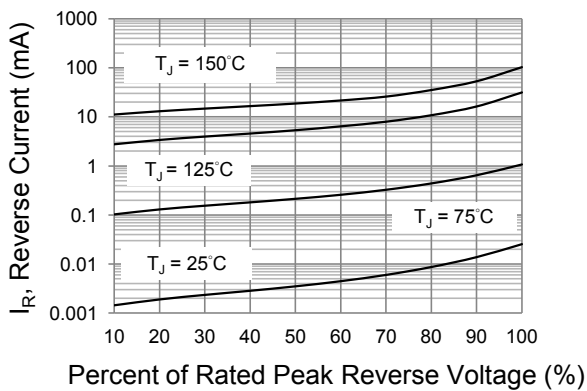


Fig.3 Typical Reverse Characteristics

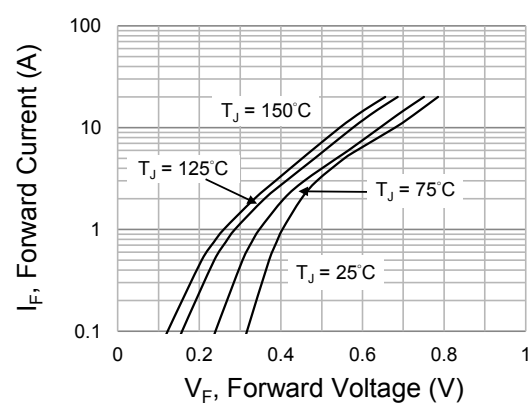


Fig.4 Typical Forward Characteristics

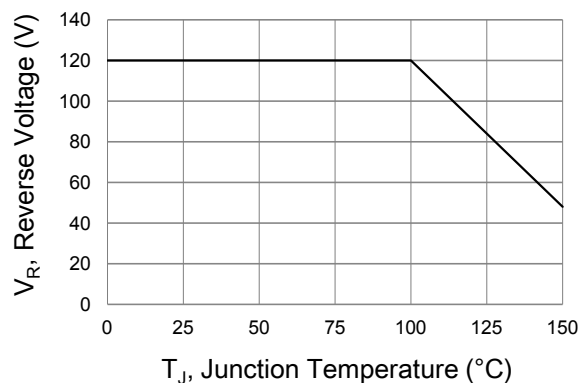


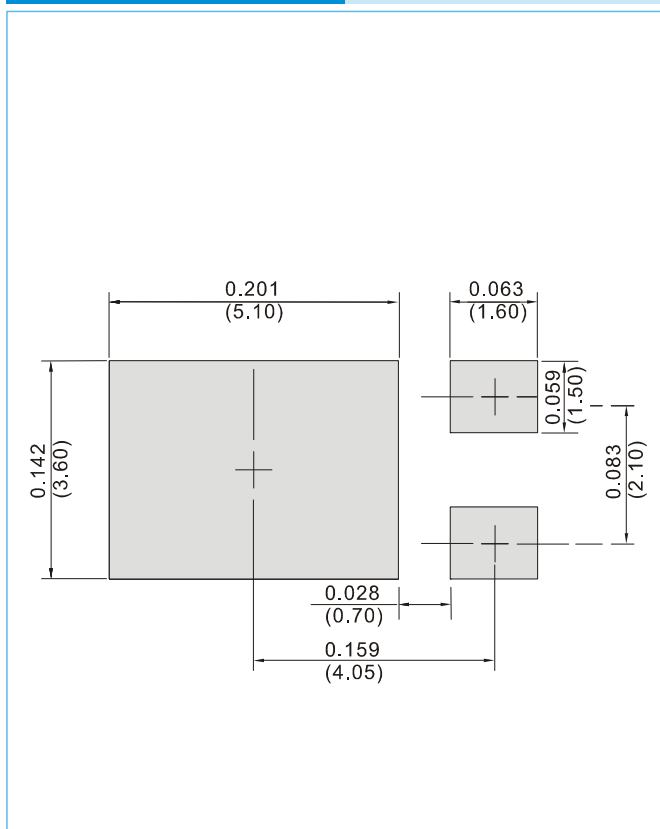
Fig.5 Operating Temperature Derating Curve

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MOUNTING PAD LAYOUT

TO-277

Unit : inch(mm)



ORDER INFORMATION

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



SVC12120V

Part No_packing code_Version

SVC12120V_R2_00001

For example :

RB500V-40_R2_00001

Part No.

Serial number

Version code means HF

Packing size code means 13"

Packing type means T/R

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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