



# SV1040

## SCHOTTKY BARRIER RECTIFIER

**VOLTAGE** 40 Volt **CURRENT** 10 Ampere

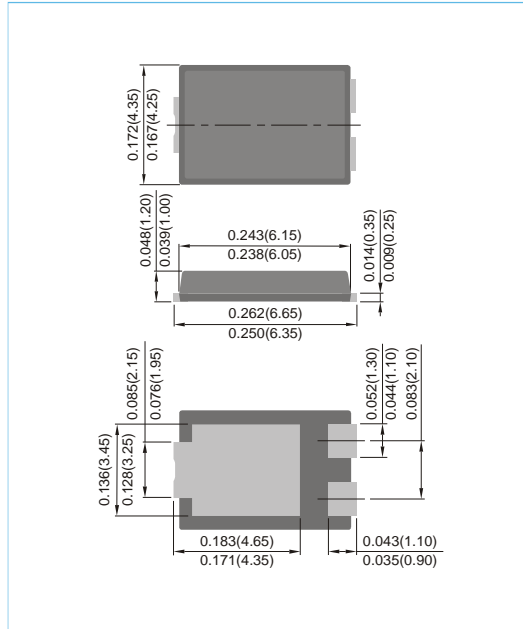
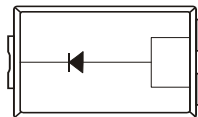
**TO-277** Unit : inch(mm)

### FEATURES

- Ideal for automated placement
- High efficiency Operation
- Low thermal resistance
- 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:SV1040



### ABSOLUTE MAXIMUM RATINGS (TA=25°C unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	40	V
Maximum RMS Voltage	V <sub>RMS</sub>	28	V
Maximum DC Blocking Voltage	V <sub>R</sub>	40	V
Average Rectified Output Current @T <sub>L</sub> =125°C	I <sub>F(AV)</sub>	10	A
Peak Forward Surge Current : 8.3ms Single Half Sine-Wave Superimposed On Rated Load	I <sub>FSM</sub>	300	A
Typical Thermal Resistance, Junction to Ambient Junction to Lead	R <sub>θJA</sub> R <sub>θJL</sub>	60 4	°C/W
Operating Junction Temperature and Storage Temperature range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to + 150	°C

#### Notes :

1. Mounted on 2cm<sup>2</sup> FR-4 PCB.
2. Mounted on 50cm<sup>2</sup> copper pad area.



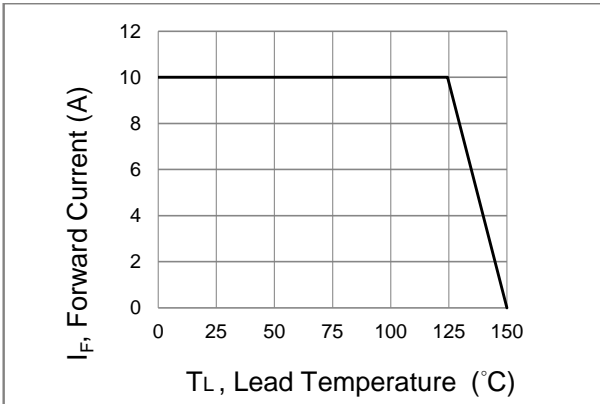
# SV1040

## ELECTRICAL CHARACTERISTICS ( $T_A=25^{\circ}\text{C}$ unless otherwise noted)

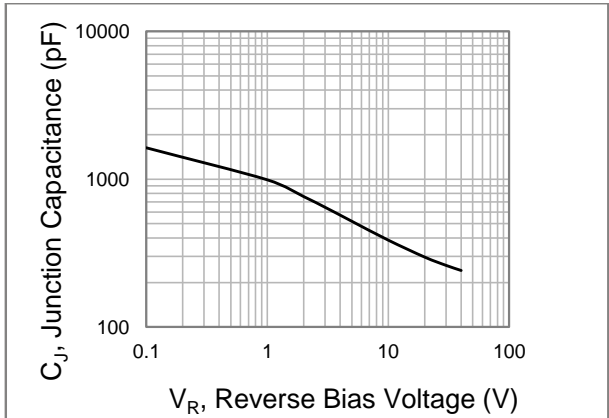
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage	$V_{BR}$	$I_R=1\text{mA}$ $T_A=25^{\circ}\text{C}$	40	-	-	V
Instantaneous forward voltage	$V_F$	$I_F=5\text{A}$ $T_A=25^{\circ}\text{C}$	-	0.44	-	V
		$I_F=10\text{A}$ $T_A=25^{\circ}\text{C}$	-	0.47	0.51	V
Reverse current	$I_R$	$V_R=32\text{V}$ $T_A=25^{\circ}\text{C}$	-	32	-	$\mu\text{A}$
		$V_R=40\text{V}$ $T_A=25^{\circ}\text{C}$	-	-	0.7	$\text{mA}$
		$V_R=40\text{V}$ $T_A=125^{\circ}\text{C}$	-	32	-	$\text{mA}$



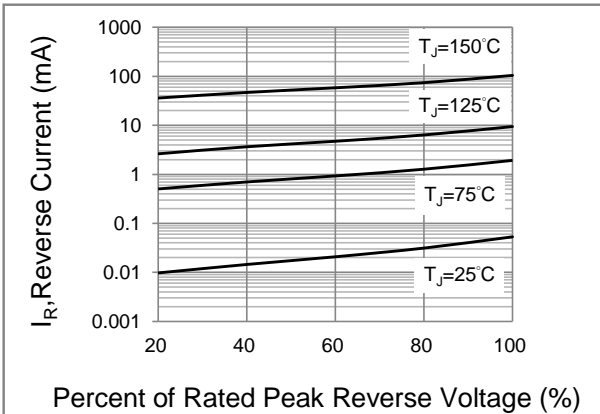
# SV1040



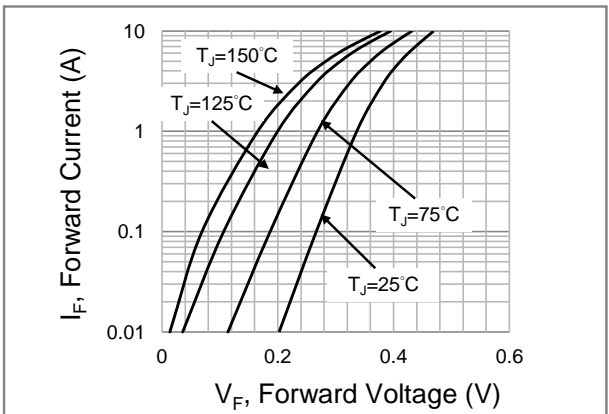
**Fig.1 Forward Current Derating Curve**



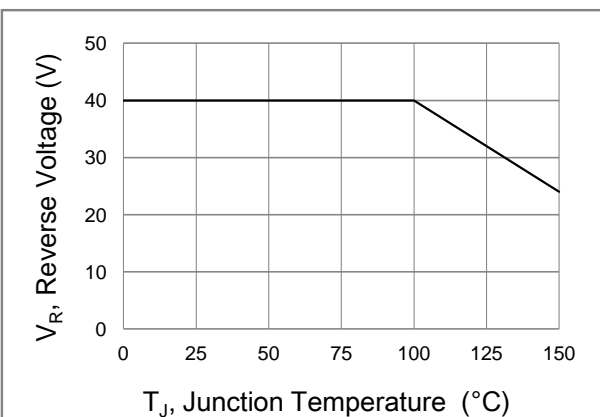
**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**

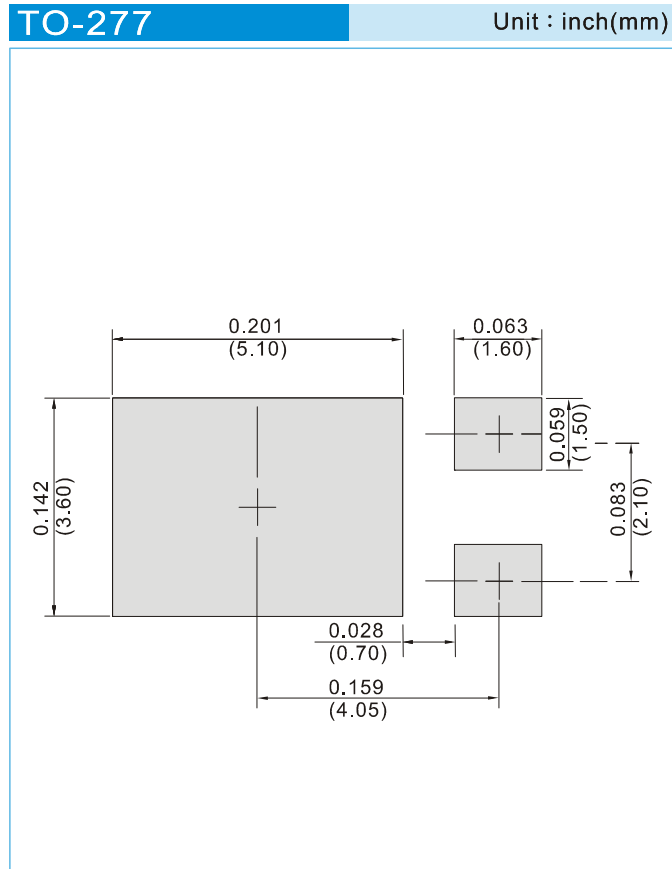


**Fig.5 Operating Temperature Derating**



# SV1040

## MOUNTING PAD LAYOUT



## ORDER INFORMATION

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



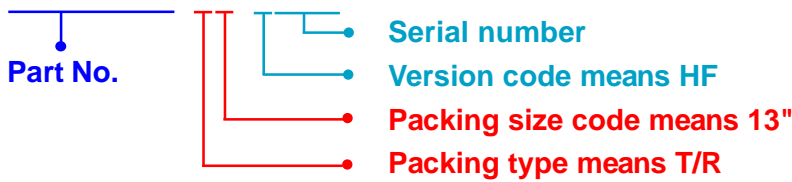
# SV1040

## Part No\_packing code\_Version

SV1040\_R2\_00001

For example :

**RB500V-40\_R2\_00001**



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



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