



# SVM860U

## LOW VF SCHOTTKY BARRIER RECTIFIER

**VOLTAGE** 60 Volts **CURRENT** 8 Amperes

### FEATURES

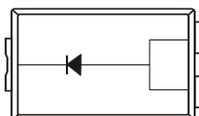
- Ideal for automated placement
- Low forward voltage drop, low power losses
- High efficiency Operation
- Low thermal resistance
- Lead free in comply with EU RoHS 2002/95/EC directives.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICAL DATA

Case : TO-277, Plastic

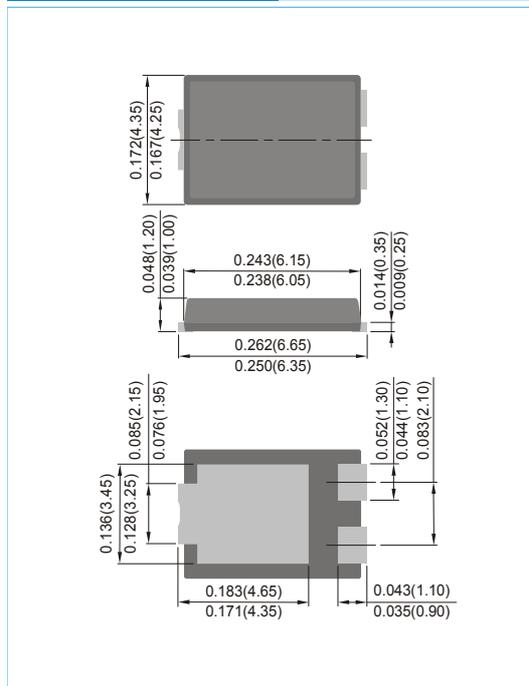
Terminals : Solderable per MIL-STD-750, Method 2026

Weight : 0.0037 ounces, 0.1073 grams



### TO-277

Unit : inch(mm)



### MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	60	V
Maximum RMS Voltage	V <sub>RMS</sub>	42	V
Maximum DC Blocking Voltage	V <sub>R</sub>	60	V
Average Rectified Output Current	I <sub>F(AV)</sub>	8	A
Peak Forward Surge Current:8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	280	A
Typical Thermal Resistance, Junction to Case (Note 1)	R <sub>θJC</sub>	9	°C/W
Junction to Ambient (Note 1)	R <sub>θJA</sub>	33	°C/W
Operating Junction Temperature and Storage Temperature range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to + 150	°C

#### NOTE:

1. Mounted on 50cm<sup>2</sup> (2oz) Copper pad area.

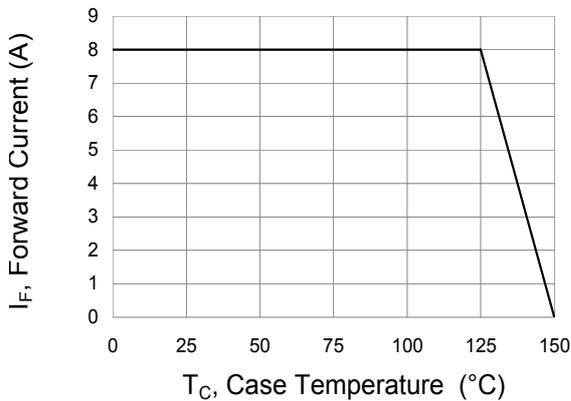


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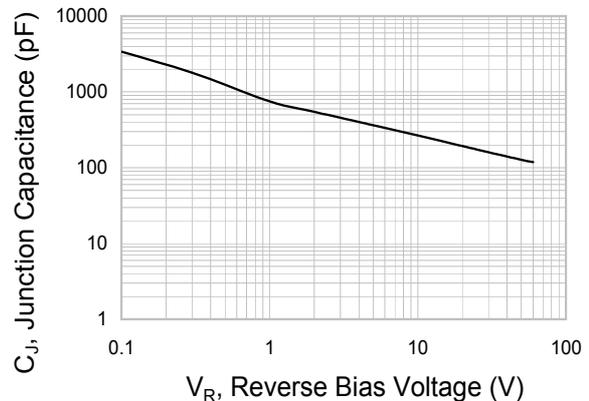
## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Break down voltage	V <sub>BR</sub>	I <sub>R</sub> =0.5mA T <sub>A</sub> =25°C	60	-	-	V
Instantaneous forward voltage	V <sub>F</sub>	I <sub>F</sub> =0.1A I <sub>F</sub> =1A I <sub>F</sub> =4A I <sub>F</sub> =8A T <sub>A</sub> =25°C	-	0.21 0.29 0.39 0.47	- 0.35 - 0.53	V
		I <sub>F</sub> =0.1A I <sub>F</sub> =1A I <sub>F</sub> =4A I <sub>F</sub> =8A T <sub>A</sub> =125°C	- - - -	0.10 0.20 0.34 0.48	- - - -	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =48V T <sub>A</sub> =25°C	-	55	-	μA
		V <sub>R</sub> =60V T <sub>A</sub> =25°C T <sub>A</sub> =125°C	- -	0.1 20	0.6 -	mA mA

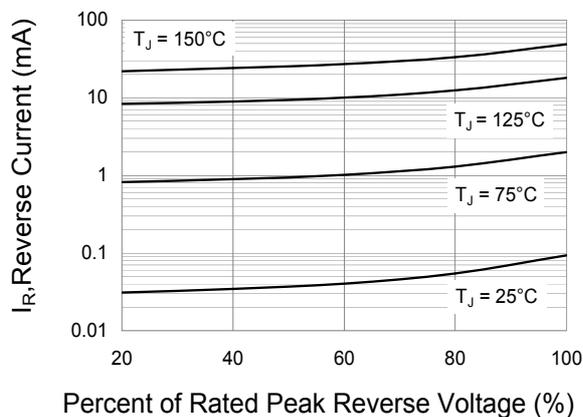
## RATING AND CHARACTERISTIC CURVES



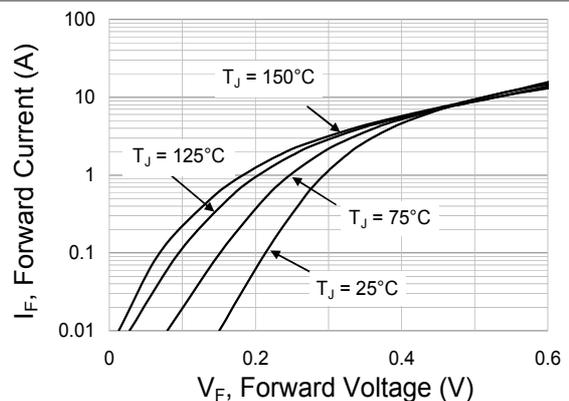
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**

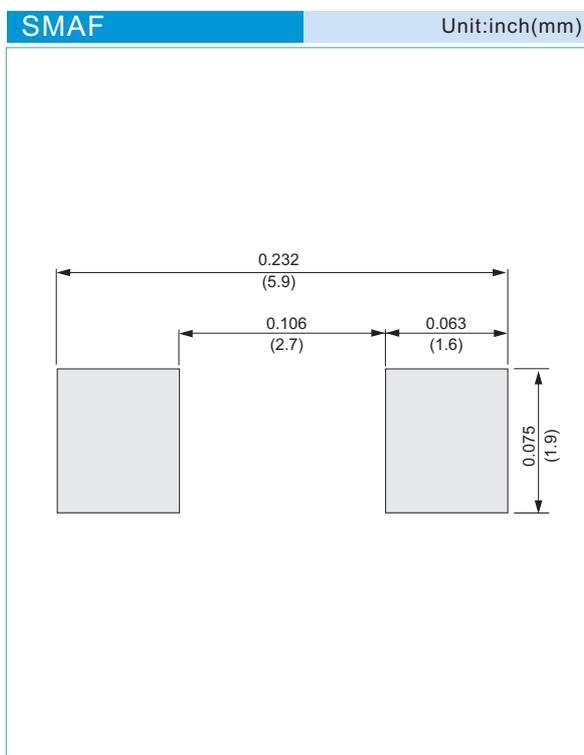


**Fig.4 Typical Forward Characteristics**



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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information
  - T/R - 10K per 13" plastic Reel
  - T/R - 3K per 7" plastic Reel

## LEGAL STATEMENT

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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
T/B	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
T/R	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
B/P	<b>B</b>	13"	<b>2</b>			
T/P	<b>T</b>	26mm	<b>X</b>			
TRR	<b>S</b>	52mm	<b>Y</b>			
TRL	<b>L</b>	PBCU	<b>U</b>			
FORMING	<b>F</b>	PBCD	<b>D</b>			

Part No\_packing code\_Version

SVM860U\_R2\_00001

SVM860U\_00001