



#### **EXTREME LOW VF SCHOTTKY BARRIER RECTIFIER**

VOLTAGE 60 Volt CURRENT 8 Ampere

#### **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
- · 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)

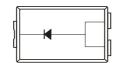
#### **MECHANICAL DATA**

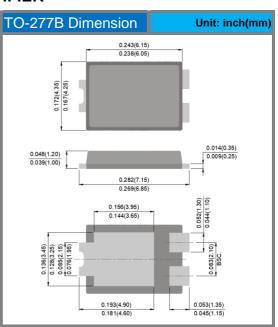
• Case: TO-277B, Plastic

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

• Weight: 0.0038 ounces, 0.1088 grams

· Marking: Part number





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

| PARAMETER   |                      |              | VALUE        | UNIT |
|---|----------------------|--------------|--------------|------|
| Maximum Recurrent Peak Reverse Voltage  |                      | VRRM         | 60           | V    |
| Maximum RMS Voltage   |                      | VRMS         | 42           | V    |
| Maximum DC Blocking Voltage   |                      | VR           | 60           | V    |
| Maximum Average Rectified Output Current  |                      | I F(AV)      | 8            | Α    |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load |                      | I FSM        | 200          | Α    |
| Typical Thermal Resistance, Junction to Case Junction to Ambient                    | (Note 1)<br>(Note 1) | Rojc<br>Roja | 9<br>33      | °C/W |
| Operating Junction Temperature and Storage Temperature range                        |                      | Тл,Тѕтс      | -55 to + 150 | °C   |

NOTE: 1.Mounted on 50cm2 (2oz) Copper pad rea.





### ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise noted)

| PARAMETER                     | SYMBOL | TEST CONDITIONS  |   | MIN.                  | TYP.   | MAX.                                  | UNIT     |
|-------------------------------|--------|--|---|-----------------------|--|---------------------------------------|----------|
| Break down voltage            | VBR    | I R=0.5mA  | Ta=25°C                                       | 60                    | -  | -                                     | V        |
| Instantaneous forward voltage | VF     | I F=0.1A<br>I F=1A<br>I F=4A<br>I F=8A<br>I F=0.1A<br>I F=1A<br>I F=4A<br>I F=8A | TA=25°C                                       | -<br>-<br>-<br>-<br>- | 0.21<br>0.29<br>0.39<br>0.47<br>0.1<br>0.2<br>0.34 | -<br>0.35<br>-<br>0.53<br>-<br>-<br>- | V        |
| Reverse current               | l R    | VR=48V   | T <sub>A</sub> =25°C                          | -                     | 55   | -                                     | μΑ       |
|                               |        | VR=60V   | T <sub>A</sub> =25°C<br>T <sub>A</sub> =125°C | -                     | 0.1<br>20  | 0.25                                  | mA<br>mA |





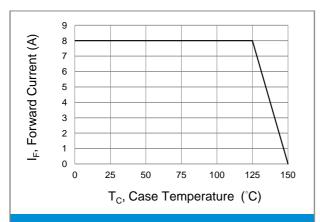


Fig.1 Forward Current Derating Curve

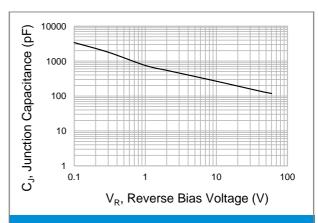


Fig.2 Typical Junction Capacitance

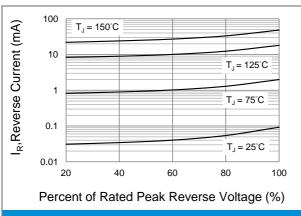
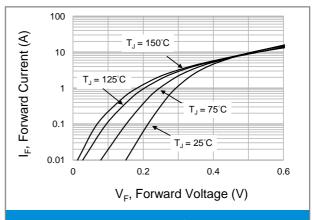
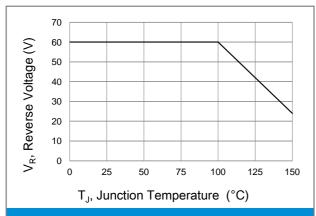


Fig.3 Typical Reverse Characteristics



**Fig.4 Typical Forward Characteristics** 

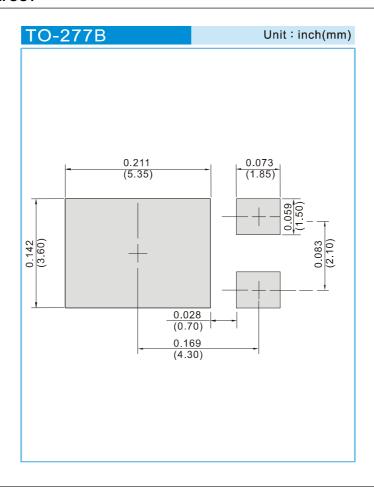


**Fig.5 Operating Temperature Derating Curve** 





#### **MOUNTING PAD LAYOUT**



#### ORDER INFORMATION

• Packing information

T/R - 5K per 13" plastic Reel

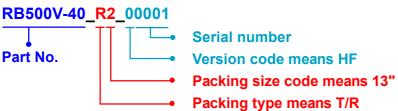




### Part No.\_packing code\_Version

SVM860UB\_R2\_00001

## For example :



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





### **Disclaimer**

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties
  of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation.
   Customers are responsible in comprehending the suitable use in particular applications.
   Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.