



# SBT1560VS

## ULTRA LOW VF SCHOTTKY RECTIFIER

**VOLTAGE** 60 Volt **CURRENT** 15 Ampere

### FEATURES

- Ultra low forward voltage drop, low power loss
- High efficiency operation
- Lead free in compliance with EU RoHS 2011/65/EU directive

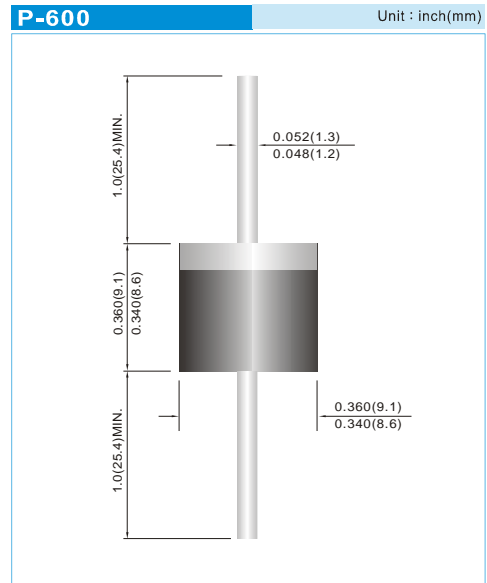
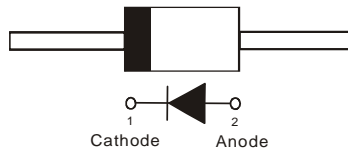
### MECHANICAL DATA

Case : P-600 molded plastic

Terminals : Axial leads, solderable per MIL-STD-750, Method 2026

Polarity : Color band denotes cathode end

Weight : 0.0719 ounces, 2.04 grams.



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

| PARAMETER   | SYMBOL                               | VALUE        | UNIT |
|---|--------------------------------------|--------------|------|
| Maximum repetitive 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    |
| Maximum average forward rectified current   | I <sub>F(AV)</sub>                   | 15           | A    |
| Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load | I <sub>FSM</sub>                     | 300          | A    |
| Typical thermal resistance (Note 1)   | R <sub>θJA</sub><br>R <sub>θJL</sub> | 13<br>4      | °C/W |
| Operating junction temperature range  | T <sub>J</sub>                       | -55 to + 150 | °C   |
| Storage temperature range   | T <sub>STG</sub>                     | -55 to + 150 | °C   |

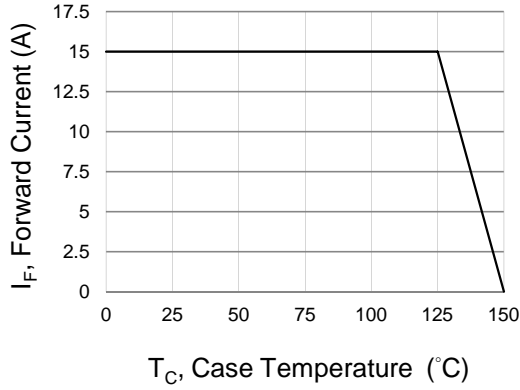
### ELECTRICAL CHARACTERISTICS(T<sub>A</sub>=25°C unless otherwise noted)

| PARAMETER                     | SYMBOL          | TEST CONDITIONS  | MIN. | TYP.                 | MAX. | UNIT     |
|-------------------------------|-----------------|--|------|----------------------|------|----------|
| Breakdown voltage             | V <sub>BR</sub> | I <sub>R</sub> =0.5mA  | 60   | -                    | -    | V        |
| Instantaneous forward voltage | V <sub>F</sub>  | I <sub>F</sub> =5A<br>I <sub>F</sub> =10A<br>I <sub>F</sub> =15A<br>T <sub>J</sub> =25°C | -    | 0.41<br>0.45<br>0.48 | -    | V        |
|                               |                 | I <sub>F</sub> =5A<br>I <sub>F</sub> =10A<br>T <sub>J</sub> =125°C                       | -    | 0.3<br>0.37          | -    | V        |
|                               |                 | V <sub>R</sub> =42V  | -    | 6                    | -    | μA       |
| Reverse current               | I <sub>R</sub>  | V <sub>R</sub> =60V<br>T <sub>J</sub> =25°C<br>T <sub>J</sub> =125°C                     | -    | -<br>10              | 50   | μA<br>mA |

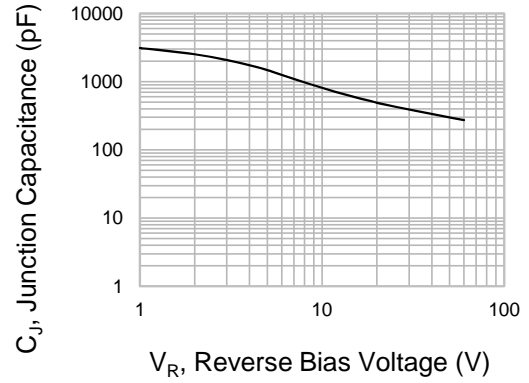
Note : 1. The testing condition of the thermal resistance (junction to ambient and junction to lead) is based on 0 mm lead length between two 10cm x 10cm x 1mm copper pad heatsinks.



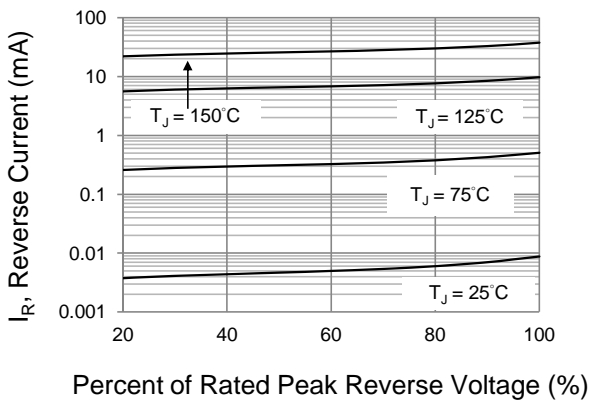
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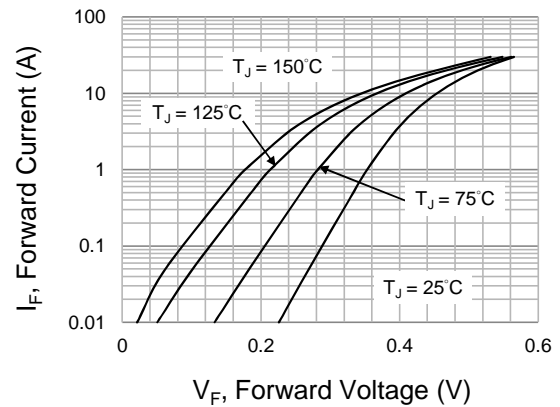
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**



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## Part No\_packing code\_Version

SBT1560VS\_AY\_00001  
 SBT1560VS\_AY\_10001  
 SBT1560VS\_B0\_00001  
 SBT1560VS\_B0\_10001  
 SBT1560VS\_R2\_00001  
 SBT1560VS\_R2\_10001

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)        | 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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