



### **ULTRA LOW VF SCHOTTKY RECTIFIER**

VOLTAGE 150 Volt CURRENT 20 Ampere

#### **FEATURES**

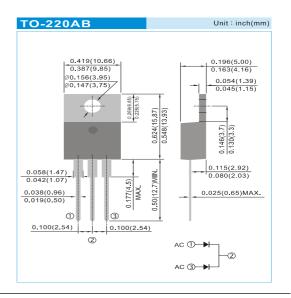
- Ultra low forward voltage drop, low power loss
- · High efficiency operation
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### **MECHANICAL DATA**

• Case: TO-220AB, Plastic

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

• Weight: 0.067 ounces, 1.89 grams.



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

| PARAMETER   |                         | SYMBOL  | VALUE        | UNIT |
|---|-------------------------|---------|--------------|------|
| Maximum repetitive peak reverse voltage   |                         | VRRM    | 150          | V    |
| Maximum rms voltage   |                         | VRMS    | 105          | V    |
| Maximum dc blocking voltage   |                         | VR      | 150          | V    |
| Maximum average forward rectified current   | per device<br>per diode | l F(AV) | 20<br>10     | А    |
| Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load |                         | I FSM   | 150          | А    |
| Typical thermal resistance  | (Note 1)                | R⊕JC    | 2            | °C/W |
| Operating junction temperature range  |                         | Tu      | -55 to + 150 | °C   |
| Storage temperature range   |                         | Тѕтс    | -55 to + 150 | °C   |

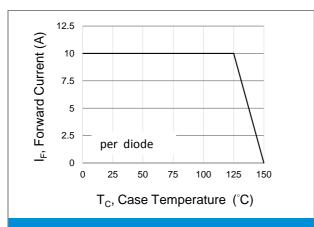
Note: 1. Device mounted on a infinite heatsink.

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

| PARAMETER                               | SYMBOL | TEST CONDITIONS             |                       | MIN.        | TYP.                | MAX.           | UNIT     |
|---|--------|-----------------------------|-----------------------|-------------|---------------------|----------------|----------|
| Breakdown voltage per diode             | VBR    | I R=0.5mA                   | TJ=25°C               | 150         | -                   | -              | V        |
| Instantaneous forward voltage per diode | VF     | I F=1A<br>I F=5A<br>I F=10A | TJ=25°C               | -<br>-<br>- | 0.54<br>0.72<br>0.8 | -<br>-<br>0.85 | V        |
|   |        | I F=1A<br>I F=5A            | T <sub>J</sub> =125°C | -           | 0.44<br>0.59        | -              | V        |
| Reverse current per diode               | l R    | VR=105V                     | TJ=25°C               | -           | 1.5                 | -              | μΑ       |
|   |        | VR=150V                     | TJ=25°C<br>TJ=125°C   | -           | -<br>3              | 40<br>-        | μA<br>mA |







**Fig.1 Forward Current Derating Curve** 

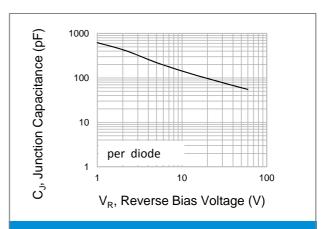


Fig.2 Typical Junction Capacitance

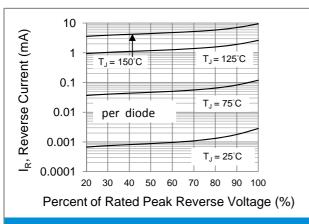
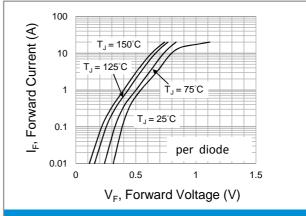
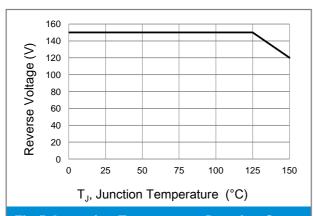


Fig.3 Typical Reverse Characteristics



**Fig.4 Typical Forward Characteristics** 



**Fig.5 Operating Temperature Derating Curve** 





# Part No\_packing code\_Version

SBT20150LCT\_T0\_00001

### For example:



| Packing Code XX                      |                      |                                   |                      |            | Version Code XXXXX   |                                       |  |  |
|--------------------------------------|----------------------|-----------------------------------|----------------------|------------|----------------------|---------------------------------------|--|--|
| 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)        | 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                              | X                    |            |                      |                                       |  |  |
| Tape and Reel (Right Oriented) (TRR) | s                    | 52mm                              | Y                    |            |                      |                                       |  |  |
| Tape and Reel (Left Oriented) (TRL)  | L                    | PANASERT T/B CATHODE UP<br>(PBCU) | U                    |            |                      |                                       |  |  |
| FORMING                              | F                    | PANASERT T/B CATHODE DOWN (PBCD)  | D                    |            |                      |                                       |  |  |





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