



## SB10100

Preliminary

DIODE

### 10A SCHOTTKY BARRIER RECTIFIER

#### DESCRIPTION

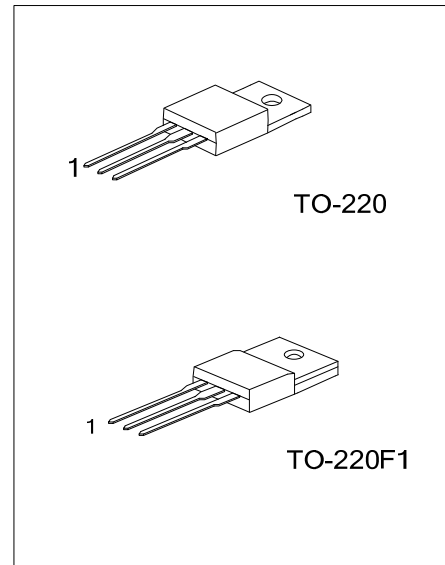
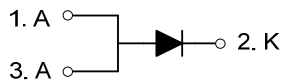
The UTC **SB10100** is a Schottky Rectifier with high current capacity and low forward voltage.

The UTC **SB10100** is suitable for polarity protection ,low voltage and high frequency inverters and free wheeling applications.

#### FEATURES

- \* Guard Ring Transient Protection
- \* High surge Current Capability
- \* High Current Capability
- \* Low Forward Voltage

#### SYMBOL



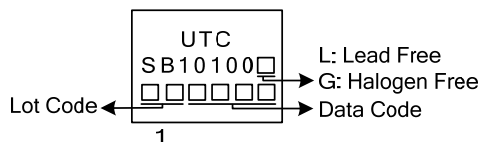
#### ORDERING INFORMATION

| Ordering Number |                | Package  | Pin Assignment |   |   | Packing |
|-----------------|----------------|----------|----------------|---|---|---------|
| Lead Free       | Halogen Free   |          | 1              | 2 | 3 |         |
| SB10100L-TA3-T  | SB10100G-TA3-T | TO-220   | A              | K | A | Tube    |
| SB10100L-TF1-T  | SB10100G-TF1-T | TO-220F1 | A              | K | A | Tube    |

Note: Pin Assignment: A: Anode K: Cathode

|   |   |
|---|---|
| <p>SB10100L-TA3-T</p> <p>(1)Packing Type<br/>(2)Package Type<br/>(3)Lead Free</p> | <p>(1) T: Tube<br/>(2) TA3: TO-220, TF1: TO-220F1<br/>(3) L: Lead Free, G: Halogen Free</p> |
|---|---|

#### MARKING



■ ABSOLUTE MAXIMUM RATINGS ( $T_A=25^\circ\text{C}$  unless otherwise specified.)

| PARAMETER  | SYMBOL       | RATINGS  | UNIT             |
|--|--------------|----------|------------------|
| Working Peak Reverse Voltage   | $V_{RWM}$    | 100      | V                |
| Repetitive Peak Reverse Voltage  | $V_{RRM}$    | 100      | V                |
| RMS Reverse Voltage  | $V_{R(RMS)}$ | 70       | V                |
| DC Blocking Voltage  | $V_R$        | 100      | V                |
| Average Rectified Output Current                                       | $I_O$        | 10       | V                |
| Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave | $I_{FSM}$    | 150      | A                |
| Operating Temperature  | $T_J$        | -65~+150 | $^\circ\text{C}$ |
| Storage Temperature  | $T_{STG}$    | -65~+150 | $^\circ\text{C}$ |

- Notes: 1. Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.  
2. These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

■ THERMAL DATA

| PARAMETER           | SYMBOL        | RATINGS | UNIT               |
|---------------------|---------------|---------|--------------------|
| Junction to Ambient | $\theta_{JA}$ | 60      | $^\circ\text{C/W}$ |

■ ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$  unless otherwise specified.)

| PARAMETER                          | SYMBOL      | TEST CONDITIONS                          | MIN | TYP | MAX  | UNIT          |
|------------------------------------|-------------|--|-----|-----|------|---------------|
| Reverse Breakdown Voltage (Note 1) | $V_{(BR)R}$ | $I_R=0.50\text{mA}$                      | 100 |     |      | V             |
| Forward Voltage Drop               | $V_{FM}$    | $I_F=10\text{A}, T_J=25^\circ\text{C}$   |     |     | 0.85 | V             |
|                                    |             | $I_F=10\text{A}, T_J=100^\circ\text{C}$  |     |     | 0.80 | V             |
| Leakage Current (Note 1)           | $I_{RM}$    | $V_R=100\text{V}, T_J=25^\circ\text{C}$  |     |     | 500  | $\mu\text{A}$ |
|                                    |             | $V_R=100\text{V}, T_J=100^\circ\text{C}$ |     |     | 50   | mA            |

- Notes: 1. Short duration pulse test used to minimize self-heating effect.  
2. Thermal resistance junction to case mounted on heatsink.

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