



# SB260

**DIODE**

## 2.0A SCHOTTKY BARRIER RECTIFIER

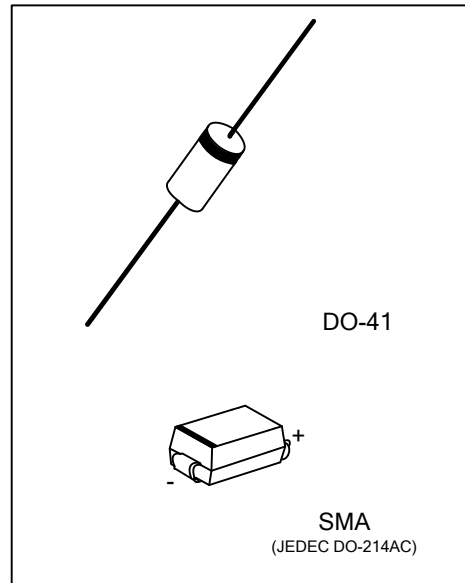
### DESCRIPTION

The UTC **SB260** is a 2.0A schottky barrier rectifier, it uses UTC's advanced technology to provide customers with low forward voltage drop, high current capability and high efficiency, etc.

The UTC **SB260** is suitable for use in free wheeling, high frequency inverters, low voltage and polarity protection applications.

### FEATURES

- \* Low forward voltage drop
- \* High current capability
- \* High surge capability
- \* Low power loss
- \* High efficiency



### ORDERING INFORMATION

| Ordering Number |              | Package | Pin Assignment |   | Packing   |
|-----------------|--------------|---------|----------------|---|-----------|
| Lead Free       | Halogen Free |         | 1              | 2 |           |
| SB260L-SMA-R    | SB260G-SMA-R | SMA     | K              | A | Tape Reel |
| SB260L-Z41-B    | SB260G-Z41-B | DO-41   | K              | A | Tape Box  |
| SB260L-Z41-R    | SB260G-Z41-R | DO-41   | K              | A | Tape Reel |

Note: Pin Assignment: A: Anode K: Cathode

|   |   |
|---|---|
| <p>SB260L-SMA-R</p> <pre> graph TD     A[SB260L-SMA-R] --- B["(1)Packing Type"]     A --- C["(2)Package Type"]     A --- D["(3)Green Package"]         </pre> | <p>(1) B: Tape Box, R: Tape Reel<br/>                 (2) SMA: SMA, Z41: DO-41<br/>                 (3) L: Lead Free, G: Halogen Free and Lead Free</p> |
|---|---|

### MARKING

| SMA  | DO-41   |
|--|---|
| <p>Cathode Band for uni-directional Only</p> <p>UTC □□□</p> <p>SB260□</p> <p>Date Code</p> <p>L: Lead Free<br/>G: Halogen Free</p> | <p>Cathode Band for uni-directional Only</p> <p>SB260□</p> <p>□□□□</p> <p>Date Code</p> <p>L: Lead Free<br/>G: Halogen Free</p> |

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

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitance load, derate current by 20%.

| PARAMETER   | SYMBOL       | RATINGS  | UNIT             |
|---|--------------|----------|------------------|
| DC Blocking Voltage   | $V_R$        | 60       | V                |
| Working Peak Reverse Voltage  | $V_{RWM}$    | 60       | V                |
| Repetitive Peak Reverse Voltage   | $V_{RRM}$    | 60       | V                |
| RMS Reverse Voltage   | $V_{R(RMS)}$ | 42       | V                |
| Average Rectified Output Current ( $T_A=25^\circ\text{C}$ ) (Note 1)  | $I_O$        | 2.0      | A                |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method) | $I_{FSM}$    | 50       | A                |
| Operating Junction Temperature  | $T_J$        | -55~+125 | $^\circ\text{C}$ |
| Storage Temperature   | $T_{STG}$    | -55~+125 | $^\circ\text{C}$ |

Note: 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.

■ THERMAL DATA

| PARAMETER           | SYMBOL        | RATINGS | UNIT               |
|---------------------|---------------|---------|--------------------|
| Junction to Ambient | $\theta_{JA}$ | 50      | $^\circ\text{C/W}$ |

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

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitance load, derate current by 20%.

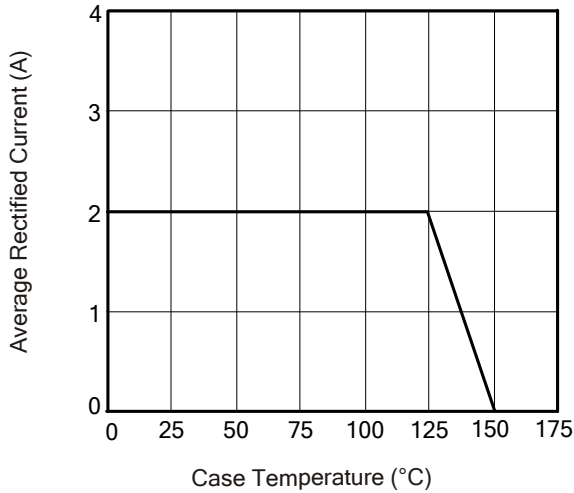
| PARAMETER   | SYMBOL   | TEST CONDITIONS        | MIN | TYP | MAX  | UNIT |
|---|----------|------------------------|-----|-----|------|------|
| Forward Voltage Drop                              | $V_{FM}$ | $I_F=2.0\text{A}$      |     |     | 0.70 | V    |
| Peak Reverse Current at Rated DC Blocking Voltage | $I_{RM}$ | $T_A=25^\circ\text{C}$ |     |     | 0.5  | mA   |
| Junction Capacitance (Note 2)                     | $C_J$    |                        |     | 190 |      | pF   |

Notes: 1. Pulse width $\leq$ 300 $\mu\text{s}$ , duty cycle $\leq$ 2%.

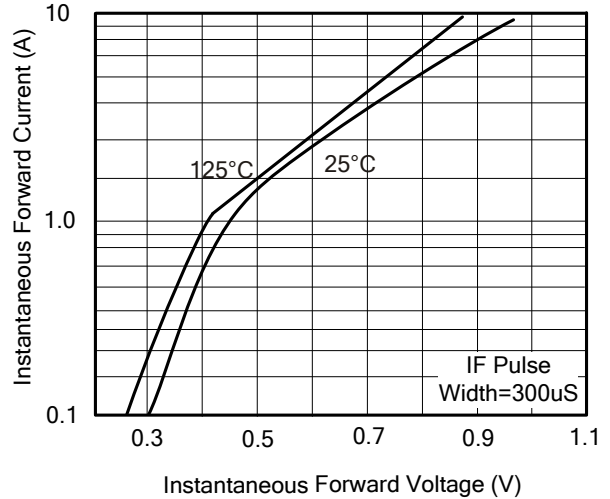
2. Measured at 1.0MHz and applied reverse voltage of 5.0V DC.

■ TYPICAL CHARACTERISTICS

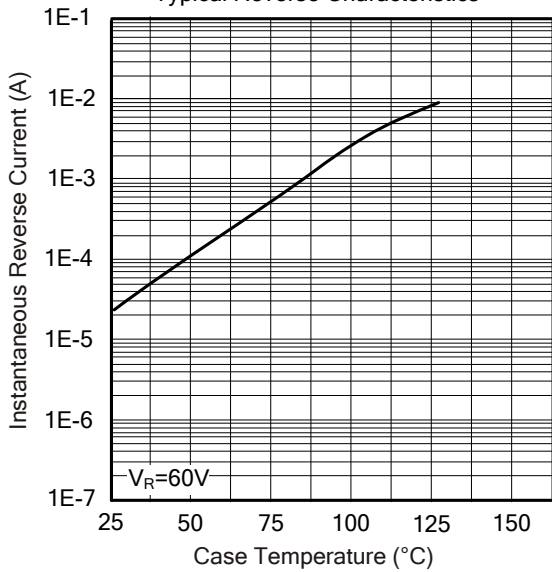
Forward Derating Curve



Typical Forward Characteristics



Typical Reverse Characteristics



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