



SB160

Preliminary

DIODE

1.0A SCHOTTKY BARRIER RECTIFIER

■ DESCRIPTION

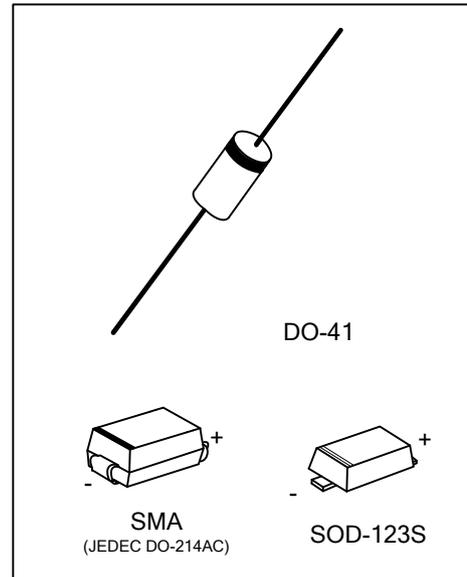
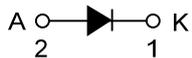
The UTC **SB160** is a Schottky Rectifier with high current capacity and low forward voltage.

The UTC **SB160** is suitable for polarity protection ,low voltage and high frequency inverters and free wheeling applications.

■ FEATURES

- * High Current Capability
- * Low Forward Voltage

■ SYMBOL



■ ORDERING INFORMATION

| Ordering Number | | Package | Pin Assignment | | Packing |
|-----------------|---------------|----------|----------------|---|-----------|
| Lead Free | Halogen Free | | 1 | 2 | |
| - | SB160G-CA2S-R | SOD-123S | K | A | Tape Reel |
| SB160L-SMA-R | SB160G-SMA-R | SMA | K | A | Tape Reel |
| SB160L-Z41-R | SB160G-Z41-R | DO-41 | K | A | Tape Reel |
| SB160L-Z41-B | SB160G-Z41-B | DO-41 | K | A | Tape Box |

Note: Pin Assignment: A: Anode K: Cathode

| | |
|--|---|
| <p>SB160G-CA2S-R</p> <p>(1)Packing Type (2)Package Type (3)Green Package</p> | <p>(1) R: Tape Reel, B: Tape Box (2) CA2S: SOD-123S, SMA: SMA, Z41: DO-41 (3) G: Halogen Free and Lead Free, L: Lead Free</p> |
|--|---|

■ MARKING

| Package | MARKING |
|----------|---------|
| SOD-123S | |
| SMA | |
| DO-41 | |

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

| PARAMETER | SYMBOL | RATINGS | UNIT |
|---|-------------------------|------------|------------------|
| Repetitive Peak Reverse Voltage | V_{RRM} | 60 | V |
| Working Peak Reverse Voltage | V_{RWM} | 60 | V |
| DC Blocking Voltage | V_R | 60 | V |
| Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 40 | A |
| Average Rectified Output Current | I_O | 1.0 | A |
| Peak Reverse Current at Rated DC Blocking Voltage | $T_A=25^\circ\text{C}$ | I_{RM} | 0.5 |
| | $T_A=100^\circ\text{C}$ | | 5.0 |
| Operating Temperature | T_J | -65 ~ +150 | $^\circ\text{C}$ |
| Storage Temperature | T_{STG} | -65 ~ +150 | $^\circ\text{C}$ |

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 |
|----------------------------|----------|---------------|-----------|
| Typical Thermal Resistance | SOD-123S | θ_{JL} | 25 (Note) |
| | SMA | | 20 |
| | DO-41 | θ_{JC} | 22 |

Note: FR-4 PCB, 2 oz Copper. Minimum recommended pad layout.

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

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNIT |
|---|-------------|-------------------------|-----|-----|-----|---------------|
| Reverse Breakdown Voltage | $V_{(BR)R}$ | $I_R=0.50\text{mA}$ | 60 | | | V |
| Forward Voltage Drop | V_{FM} | $I_F=1.0\text{A}$ | | | 0.7 | V |
| Peak Reverse Current at Rated DC Blocking Voltage | I_{RM} | $T_A=25^\circ\text{C}$ | | | 500 | μA |
| | | $T_A=100^\circ\text{C}$ | | | 5.0 | mA |

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

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