



## SB140

DIODE

### 1.0A SCHOTTKY BARRIER RECTIFIER

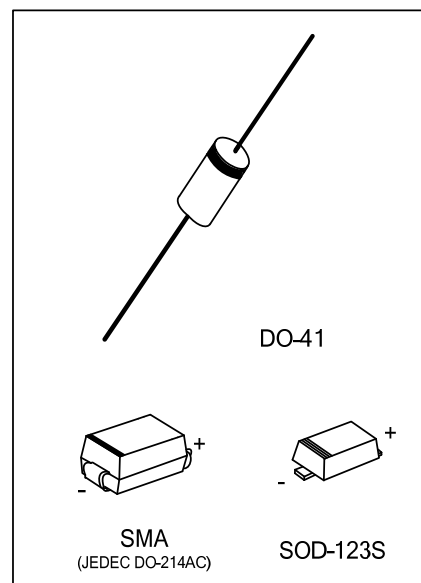
#### DESCRIPTION

The UTC **SB140** is a Schottky Rectifier with high current capacity and low forward voltage.

The UTC **SB140** is suitable for polarity protection, low voltage and high frequency inverters and free wheeling applications

#### FEATURES

- \* High Current Capability
- \* Low Forward Voltage



#### ORDERING INFORMATION

Ordering Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
-	SB140G-CA2S-R	SOD-123S	K	A	Tape Reel
SB140L-SMA-R	SB140G-SMA-R	SMA	K	A	Tape Reel
SB140L-Z41-B	SB140G-Z41-B	DO-41	K	A	Tape Box
SB140L-Z41-R	SB140G-Z41-R	DO-41	K	A	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

<p>SB140L-CA2S-R</p> <p>(1) Packing Type</p> <p>(2) Package Type</p> <p>(3) Green Package</p>	<p>(1) R: Tape Reel, B: Tape Box</p> <p>(2) CA2S: SOD-123S, SMA: SMA, Z41: DO-41</p> <p>(3) L: Lead Free, G: Halogen Free and Lead Free</p>
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#### MARKING

PACKAGE	MARKING
SOD-123S	
SMA	<p>Cathode Band for uni-directional Only</p> <p>UTC SB140</p> <p>Date Code</p> <p>L: Lead Free</p> <p>G: Halogen Free</p>
DO-41	<p>Cathode Band for uni-directional Only</p> <p>SB140</p> <p>Date Code</p> <p>L: Lead Free</p> <p>G: Halogen Free</p>

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

PARAMETER	SYMBOL	RATINGS	UNIT
Repetitive Peak Reverse Voltage	$V_{RRM}$	40	V
Working Peak Reverse Voltage	$V_{RWM}$	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	28	V
DC Blocking Voltage	$V_R$	40	V
Average Rectified Output Current	$I_O$	1.0	V
Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave	$I_{FSM}$	40	A
Operating Temperature	$T_J$	-65~+125	$^{\circ}\text{C}$
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. Measured at ambient temperature at a distance of 9.5mm from the case.

3. Short duration test pulse used to minimize self-heating effect.

■ THERMAL DATA

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

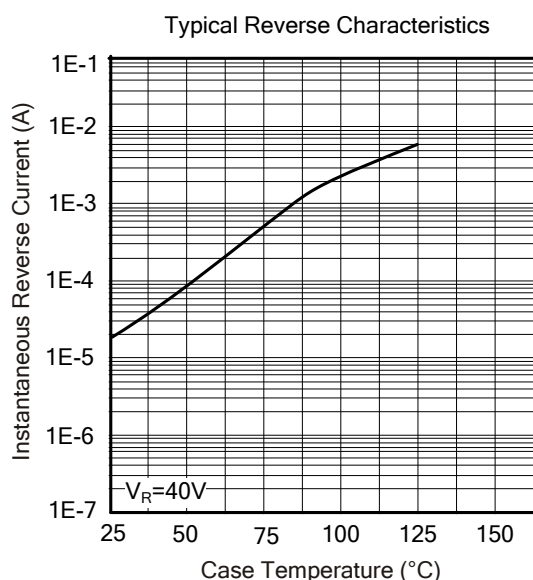
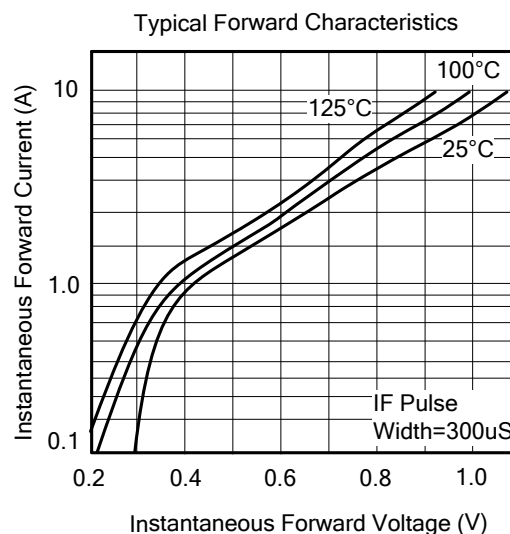
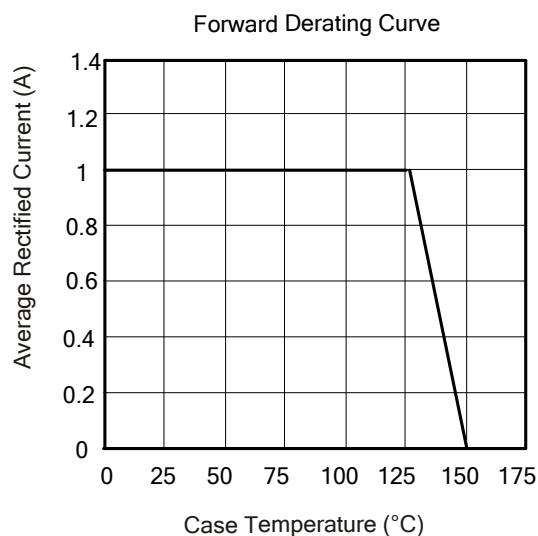
■ ELECTRICAL CHARACTERISTICS ( $T_A=25^{\circ}\text{C}$  unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage (Note 1)	$V_{(BR)R}$	$I_R=0.50\text{mA}$	40			V
Forward Voltage Drop	$V_{FM}$	$I_F=1.0\text{A}, T_J=25^{\circ}\text{C}$			0.50	V
		$I_F=1.0\text{A}, T_J=100^{\circ}\text{C}$			0.45	V
Leakage Current (Note 1)	$I_{RM}$	$V_R=40\text{V}, T_J=25^{\circ}\text{C}$			500	$\mu\text{A}$
		$V_R=40\text{V}, T_J=100^{\circ}\text{C}$			10	mA

Notes: 1. Short duration pulse test used to minimize self-heating effect.

2. Thermal resistance junction to case mounted on heatsink.

## ■ TYPICAL CHARACTERISTICS



UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.