



SB140

DIODE

1.0A SCHOTTKY BARRIER RECTIFIER

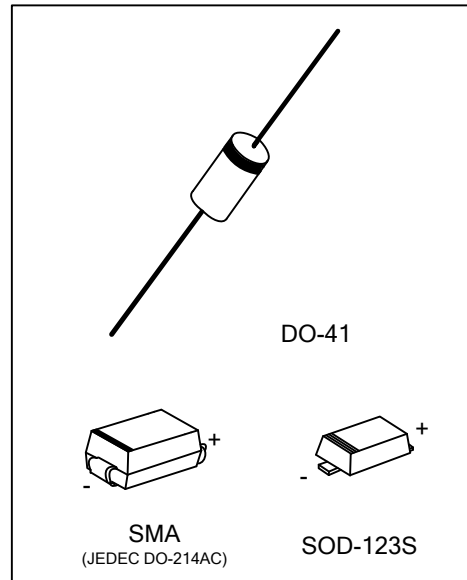
DESCRIPTION

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	
SB140L-CA2S-R	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>SB140G-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>
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MARKING

PACKAGE	MARKING
SOD-123S	<p>L: Lead Free G: Halogen Free</p>
SMA	<p>UTC SB140 Date Code L: Lead Free G: Halogen Free Cathode Band for uni-directional Only</p>
DO-41	<p>SB140 L: Lead Free G: Halogen Free Date Code Cathode Band for uni-directional Only</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	A
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	θ_{JA}	50	$^\circ\text{C/W}$

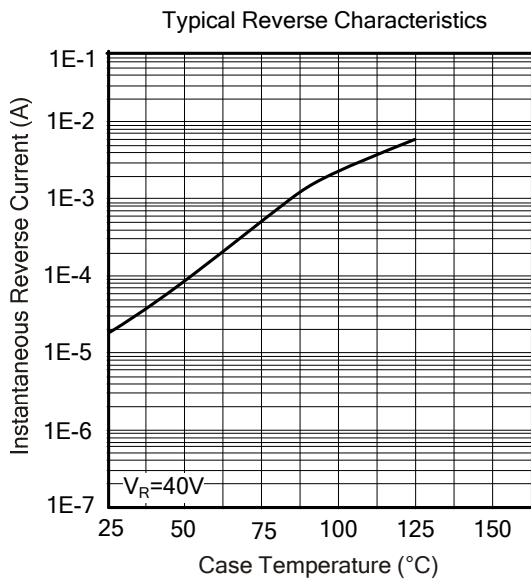
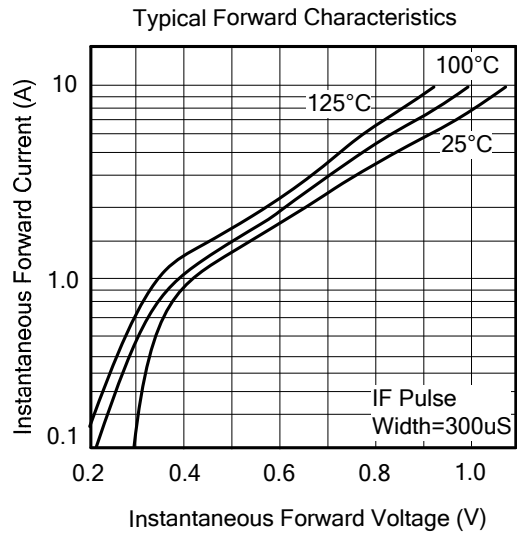
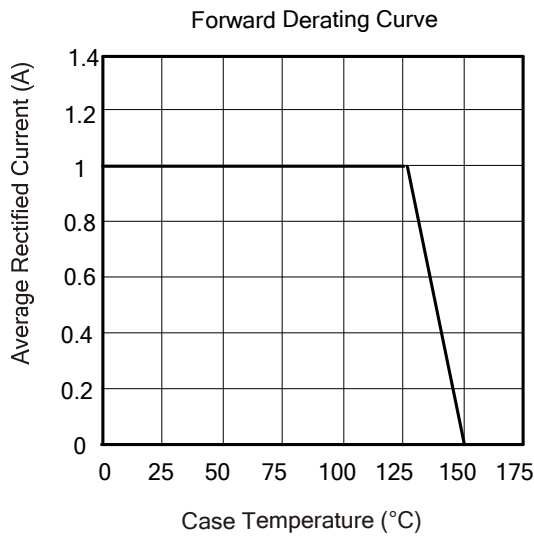
■ ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise specified.)

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	μA
		$V_R=40\text{V}, T_J=100^\circ\text{C}$			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



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