



SB160

Preliminary

DIODE

1.0A SCHOTTKY BARRIER RECTIFIER

■ DESCRIPTION

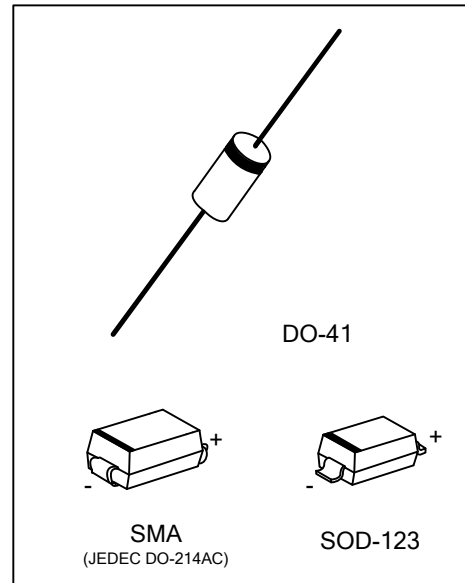
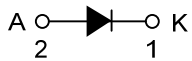
The UTC **SB160** is a Schottky Rectifier with high current capacity and low forward voltage.

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-CA2-R	SOD-123	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-CA2-R</p>	<p>(1) R: Tape Reel, B: Tape Box (2) CA2: SOD-123, SMA: SMA, Z41: DO-41 (3) G: Halogen Free and Lead Free, L: Lead Free</p>
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■ MARKING

Package	MARKING
SOD-123	
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
RMS Reverse Voltage	$V_{R(RMS)}$	42	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
Junction to Ambient	SOD-123	θ_{JA}	200
	SMA		95
	DO-41		50

Note: Measured at ambient temperature at a distance of 9.5mm from the case.

■ 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
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

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

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

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