



SB120

DIODE

1.0A SCHOTTKY BARRIER RECTIFIER

■ DESCRIPTION

The UTC **SB120** is a 1.0A 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 **SB120** is suitable for use in free wheeling, high frequency inverters, low voltage and polarity protection applications.

■ FEATURES

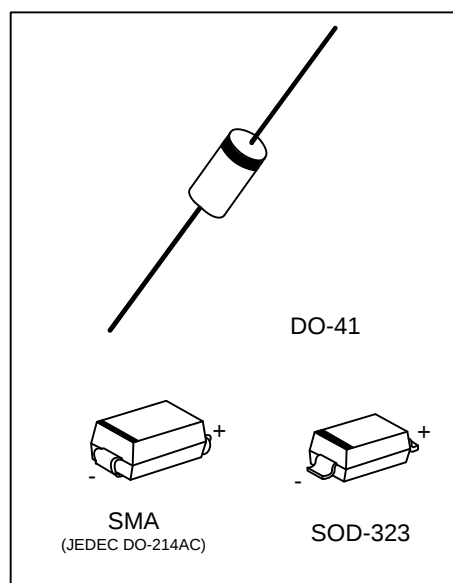
- * Low forward voltage drop
- * High current capability
- * High surge capability
- * Low power loss
- * High efficiency

■ ORDERING INFORMATION

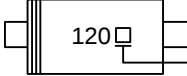
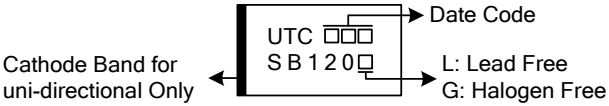
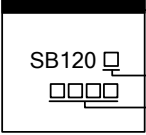
Ordering Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
SB130L-CB2-R	SB130G-CB2-R	SOD-323	K	A	Tape Reel
SB120L-SMA-R	SB120G-SMA-R	SMA	K	A	Tape Reel
SB120L-Z41-B	SB120G-Z41-B	DO-41	K	A	Tape Box
SB120L-Z41-R	SB120G-Z41-R	DO-41	K	A	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

SB120G-SMA-R (1)Packing Type (2)Package Type (3)Green Package	(1) R: Tape Reel, B: Tape Box (2) SMA: SMA, Z41: DO-41 (3) G: Halogen Free and Lead Free, L: Lead Free
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■ MARKING

PACKAGE	MARKING
SOD-323	 120 □ L: Lead Free G: Halogen Free
SMA	 Cathode Band for uni-directional Only UTC □ □ □ S B 1 2 0 □ Date Code L: Lead Free G: Halogen Free
DO-41	 SB120 □ □ □ □ Cathode Band for uni-directional Only L: Lead Free G: Halogen Free Date Code

■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C unless otherwise specified)

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

For capacitance load, derate current by 20%.

PARAMETER	SYMBOL	RATINGS	UNIT
Peak Repetitive Reverse Voltage	V _{RRM}	20	V
Working Peak Reverse Voltage	V _{RWM}	20	V
RMS Reverse Voltage	V _{R(RMS)}	14	V
DC Blocking Voltage	V _R	20	V
Average Rectified Output Current	I _O	1.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	25	A
Operating Junction Temperature	T _J	-65 ~ +125	°C
Storage Temperature	T _{STG}	-65 ~ +150	°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

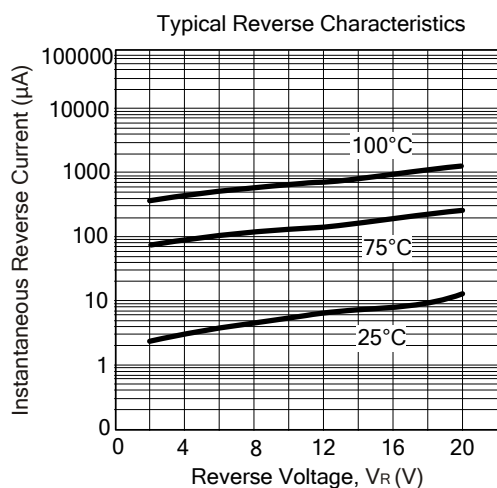
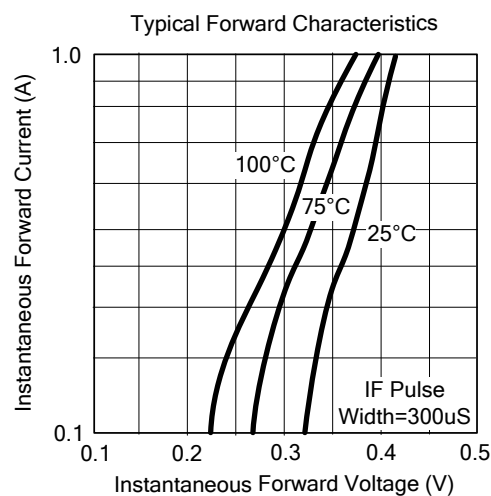
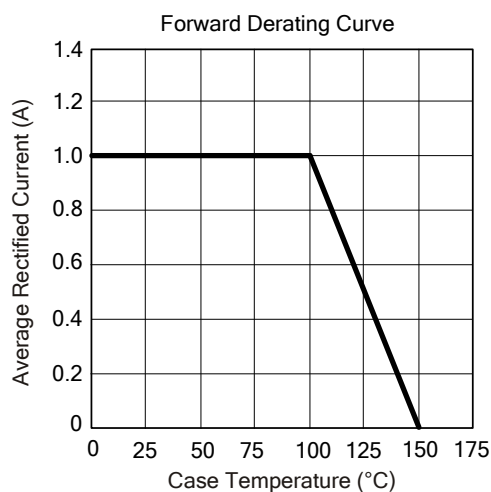
PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Ambient	SOD-323	θ _{JA}	200	°C/W
	SMA		95	°C/W
	DO-41		50	°C/W

■ ELECTRICAL CHARACTERISTICS (Note 2) (T_A=25°C unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage	V _{(BR)R}	I _R =0.50mA	20			V
Forward Voltage Drop	V _{FM}	I _F =1.0A			0.5	V
Peak Reverse Current at Rated DC Blocking Voltage	I _{RM}	T _A =25°C			1.0	mA
		T _A =100°C			10	mA

Notes: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Short duration test pulse used to minimize self-heating effect.

■ TYPICAL CHARACTERISTICS



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