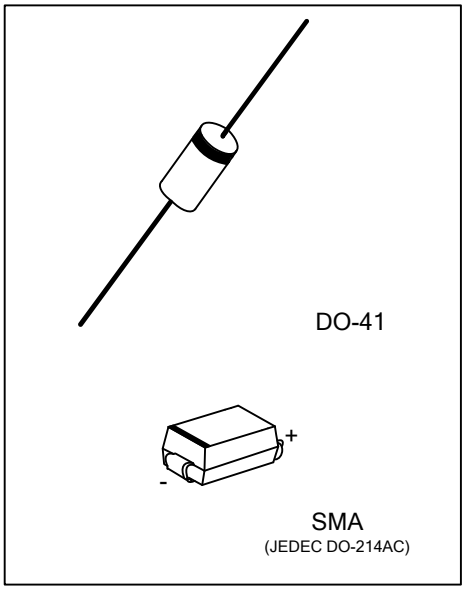
1.0A SCHOTTKY BARRIER RECTIFIER



■ 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	
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

SB120L-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) L: Lead Free, G: Halogen Free and Lead Free

■ MARKING

SMA	DO-41
Cathode Band for uni-directional Only UTC □□□ S B 1 2 0 □ Date Code L: Lead Free G: Halogen Free	Cathode Band for uni-directional Only SB120 □ □□□□ 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	SMA	θ_{JA}	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			0.45	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.