



SB5100

DIODE

5.0A SCHOTTKY BARRIER RECTIFIER

DESCRIPTION

The UTC **SB5100** is a 5.0A schottky barrier rectifier, it uses UTC's advanced technology to provide customers with high surge capability, high current capability and high efficiency, etc.

The UTC **SB5100** is suitable for use in free wheeling, high frequency inverters, low voltage and polarity protection applications.

FEATURES

- * High current capability
- * High surge capability
- * Low power loss
- * High efficiency

SYMBOL



ORDERING INFORMATION

Ordering Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
SB5100L-SMA-R	SB5100G-SMA-R	SMA	K	A	Tape Reel
SB5100L-SMB-R	SB5100G-SMB-R	SMB	K	A	Tape Reel
SB5100L-SMC-R	SB5100G-SMC-R	SMC	K	A	Tape Reel
SB5100L-Z21D-B	SB5100G-Z21D-B	DO-201AD	K	A	Tape Box

Note: Pin Assignment: A: Anode K: Cathode

	(1) R: Tape Reel, B: Tape Box (2) SMA: SMA, SMB: SMB, SMC: SMC, Z21D: DO-201AD (3) G: Halogen Free and Lead Free
--	---

MARKING

SMA / SMB / SMC	DO-201AD

■ 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
DC Blocking Voltage	V _R	100	V
Working Peak Reverse Voltage	V _{RWM}	100	V
Peak Repetitive Reverse Voltage	V _{RRM}	100	V
RMS Reverse Voltage	V _{R(RMS)}	70	V
Average Rectified Output Current	I _O	5.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	150	A
Operating Junction Temperature	T _J	-65~+150	°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	θ _{JA}	75	°C/W
		40	

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

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

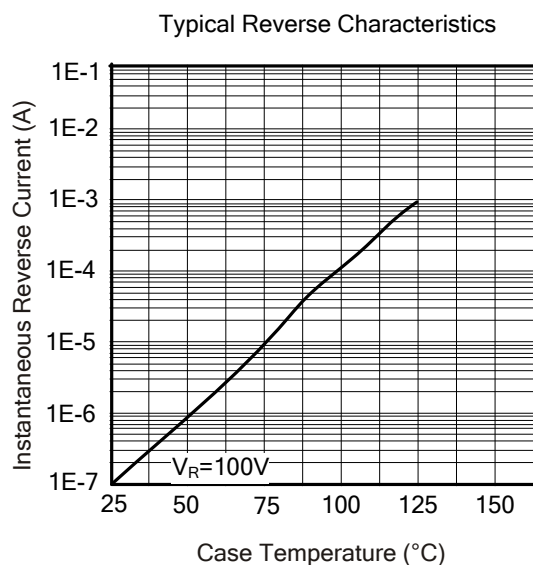
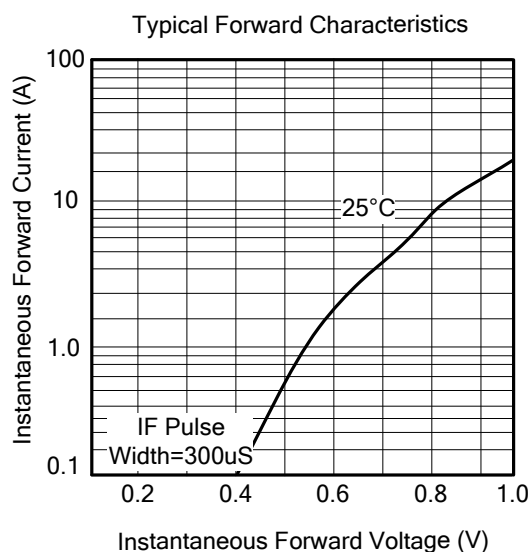
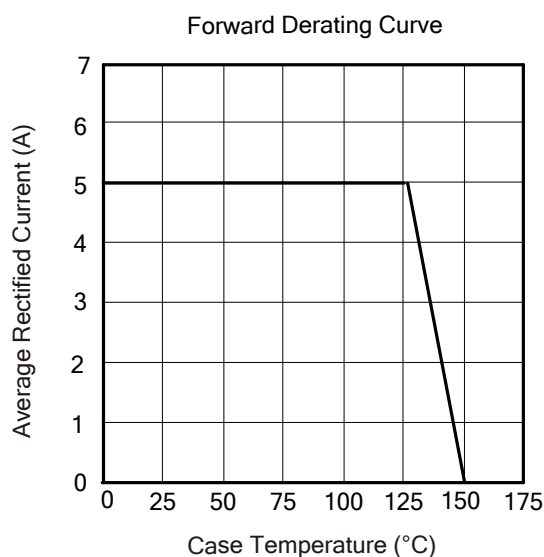
For capacitance load, derate current by 20%.

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage (Note 1)	V _{(BR)R}	I _R =0.50mA	100			V
Forward Voltage Drop	V _{FM}	I _F =5A, T _J =25°C			0.80	V
		I _F =5A, T _J =125°C			0.75	V
Leakage Current (Note 1)	I _{RM}	V _R =100V, T _A =25°C			500	μA
		V _R =100V, T _A =125°C			50	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.