



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

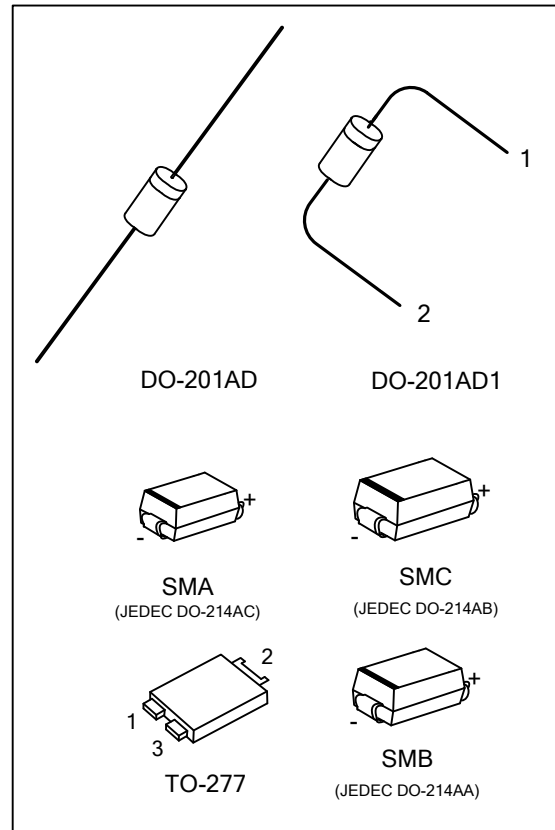


ORDERING INFORMATION

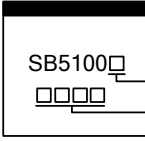
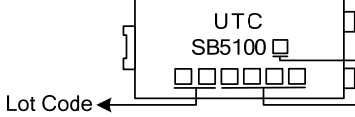
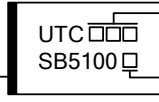
Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
SB5100L-Z21D-B	SB5100G-Z21D-B	DO-201AD	K	A	-	Tape Box
SB5100L-Z21D1-B	SB5100G-Z21D1-B	DO-201AD1	K	A	-	Tape Box
SB5100L-T27-R	SB5100G-T27-R	TO-277	A	K	A	Tape Reel
SB5100L-SMA-R	SB5100G-SMA-R	SMA	K	A	-	Tape Reel
SB5100L-SMB-R	SB5100G-SMB-R	SMB	K	A	-	Tape Reel
SB5100L-SMC-R	SB5100G-SMC-R	SMC	K	A	-	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

<p>SB5100G-Z21D1-R</p> <p>(1)Packing Type (2)Package Type (3)Green Package</p>	<p>(1) R: Tape Reel, B: Tape Box (2) Z21D: DO-201AD, Z21D1: DO-201AD1, T27: TO-277, SMA: SMA, SMB: SMB, SMC: SMC (3) G: Halogen Free and Lead Free, L: Lead Free</p>
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■ MARKING

PACKAGE	MARKING
DO-201AD	 <p> Cathode Band for uni-directional Only L: Lead Free G: Halogen Free Date Code </p>
TO-277	 <p> Lot Code ← UTC SB5100 L: Lead Free G: Halogen Free Data Code </p>
SMA / SMB / SMC	 <p> Cathode Band for uni-directional Only ← UTC SB5100 L: Lead Free G: Halogen Free Date Code </p>

■ ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise specified)

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

For capacitance load, derate current by 20%.

PARAMETER	SYMBOL	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	$^\circ\text{C}$
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	θ_{JA}	40	$^\circ\text{C/W}$
		72	
		75	

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

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

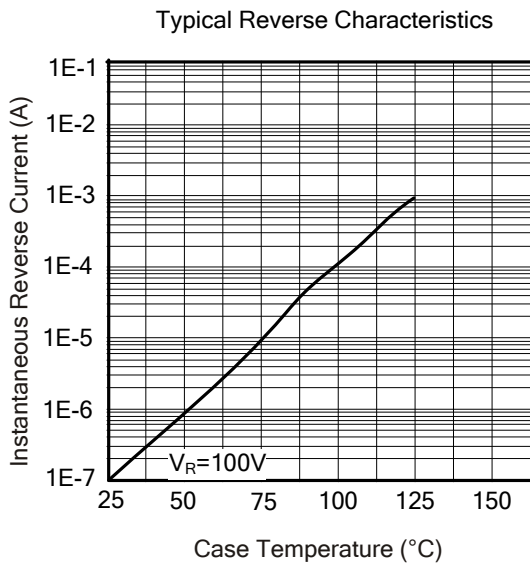
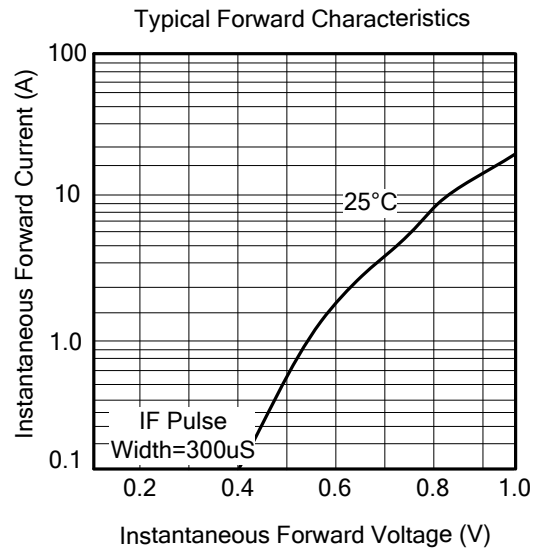
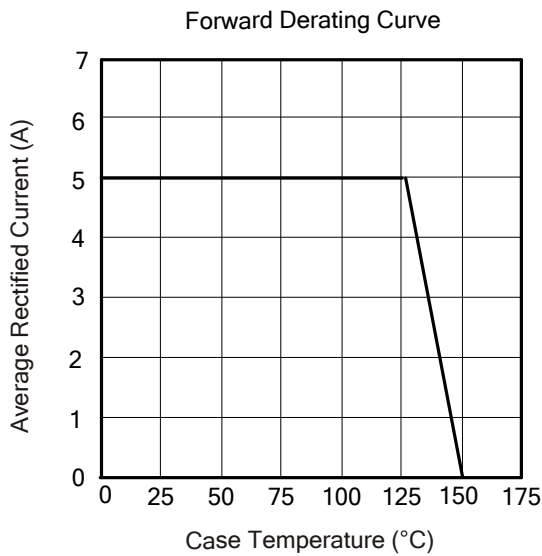
For capacitance load, derate current by 20%.

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage (Note 1)	$V_{(BR)R}$	$I_R=0.50\text{mA}$	100			V
Forward Voltage Drop	V_{FM}	$I_F=5\text{A}, T_J=25^\circ\text{C}$			0.80	V
		$I_F=5\text{A}, T_J=125^\circ\text{C}$			0.75	V
Leakage Current (Note 1)	I_{RM}	$V_R=100\text{V}, T_A=25^\circ\text{C}$			500	μA
		$V_R=100\text{V}, T_A=125^\circ\text{C}$			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



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