



SB540

DIODE

5.0A SCHOTTKY BARRIER RECTIFIER

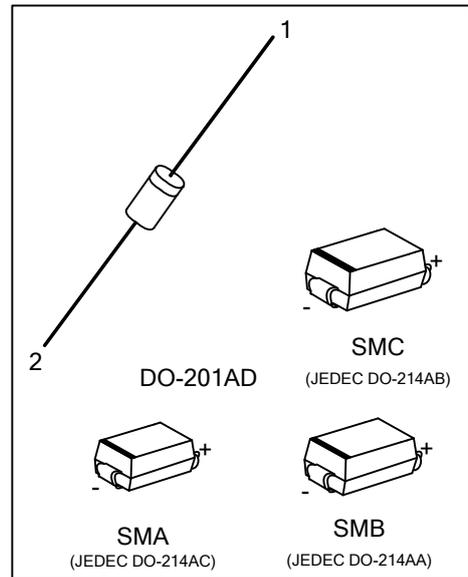
DESCRIPTION

The UTC **SB540** is 5.0A schottky barrier rectifier. it uses UTC's advanced technology to provide customers with high current capability and low forward voltage drop, etc.

The UTC **SB540** is suitable for free wheeling, low voltage and polarity protection applications, etc.

FEATURES

- * Metal to silicon rectifier, majority carrier conduction.
- * For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.
- * Low power loss, high efficiency.
- * High current capability, low V_F .
- * High surge capacity.



ORDERING INFORMATION

Ordering Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
SB540L-SMA-R	SB540G-SMA-R	SMA	K	A	Tape Reel
SB540L-SMB-R	SB540G-SMB-R	SMB	K	A	Tape Reel
SB540L-SMC-R	SB540G-SMC-R	SMC	K	A	Tape Reel
SB540L-Z21D-B	SB540G-Z21D-B	DO-201AD	K	A	Tape Box

Note: Pin Assignment: A: Anode K: Cathode

<p>SB540L-SMB-R</p> <p>(1)Packing Type (2)Package Type (3)Green Package</p>	<p>(1) R: Tape Reel, B: Tape Box (2) SMA: SMA, SMB: SMB, SMC: SMC, Z21D: DO-201AD (3) L: Lead Free, G: Halogen Free and Lead Free</p>
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MARKING

SMA / SMB / SMC	DO-201AD

■ ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise specified.)(Note 2)

PARAMETER	SYMBOL	RATINGS	UNIT
DC Blocking Voltage	V_R	40	V
Peak Repetitive Reverse Voltage	V_{RRM}	40	V
Working Peak Reverse Voltage	V_{RWM}	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	28	V
Average Rectified Output Current	I_O	5.0	A
Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave	I_{FSM}	150	A
Power Dissipation	SMA/SMB/SMC	3.7	W
	DO-201AD	5.0	
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	SMA/SMB/SMC	75 (Note 3)	$^\circ\text{C/W}$
	DO-201AD	40	

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

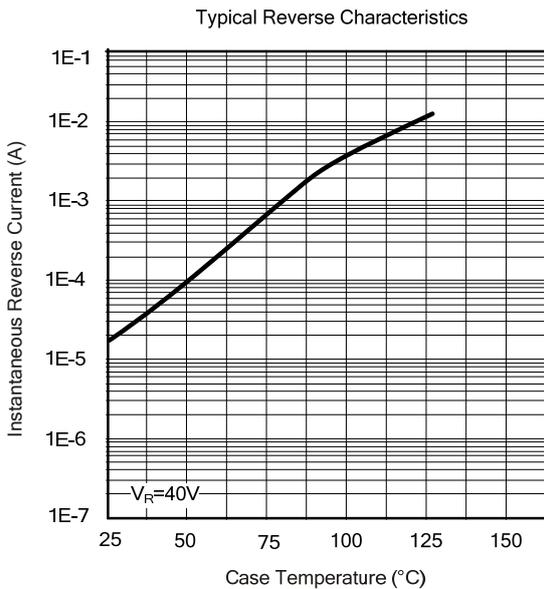
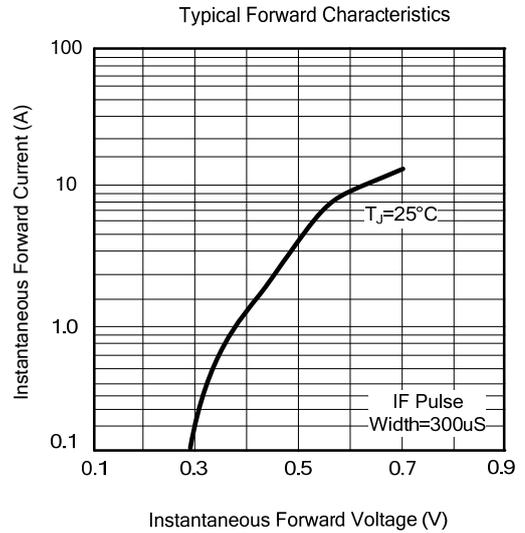
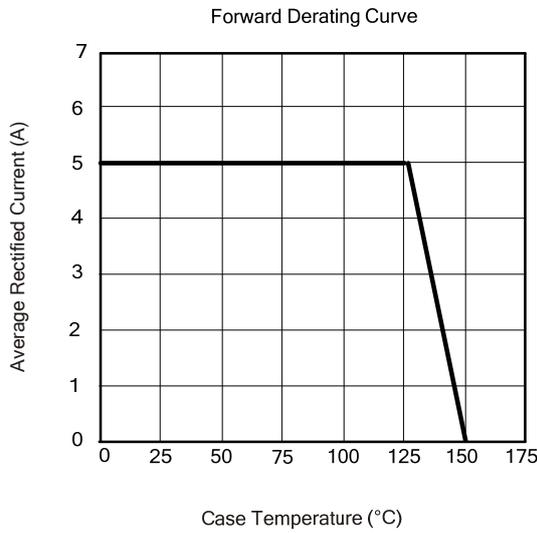
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage (Note 2)	$V_{(BR)R}$	$I_R=0.50\text{mA}$	40			V
Instantaneous Forward Voltage Drop (Note 1)	V_{FM}	$I_F=5.0\text{A}, T_J=25^\circ\text{C}$			0.55	V
		$I_F=5.0\text{A}, T_J=100^\circ\text{C}$			0.50	V
Peak Reverse Current at Rated DC Blocking Voltage (Note 2)	I_{RM}	$V_R=40\text{V}, T_J=25^\circ\text{C}$			0.50	mA
		$V_R=40\text{V}, T_J=100^\circ\text{C}$			50	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.

3. Mounted on an FR4 PCB, single-sided copper, with 100cm^2 copper pad area.

■ TYPICAL CHARACTERISTICS



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