



SB560

DIODE

5.0A SCHOTTKY BARRIER RECTIFIER

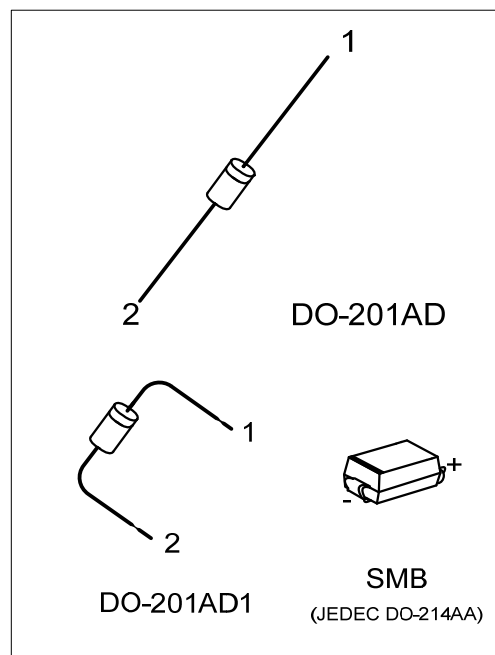
DESCRIPTION

The UTC **SB560** 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 **SB560** is suitable for free wheeling, low voltage and polarity protection applications, etc.

FEATURES

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



ORDERING INFORMATION

Ordering Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
SB560L-SMB-R	SB560G-SMB-R	SMB	K	A	Tape Reel
SB560L-Z21D-B	SB560G-Z21D-B	DO-201AD	K	A	Tape Box
SB560L-Z21D1-B	SB560G-Z21D1-B	DO-201AD1	K	A	Tape Box
SB560L-Z21D-K	SB560G-Z21D-K	DO-201AD	K	A	Bulk
SB560L-Z21D1-K	SB560G-Z21D1-K	DO-201AD1	K	A	Bulk

Note: Pin Assignment: A: Anode K: Cathode

<p>SB560G-SMB-R</p> <p>(1)Packing Type</p> <p>(2)Package Type</p> <p>(3)Green Package</p>	<p>(1) R: Tape Reel, B: Tape Box, K: Bulk</p> <p>(2) SMB: SMB, Z21D: DO-201AD Z21D1: DO-201AD1</p> <p>(3) G: Halogen Free and Lead Free, L: Lead Free</p>
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MARKING

DO-201AD / DO-201AD1	SMC
<p>SB560</p> <p>Cathode Band for uni-directional Only</p> <p>L: Lead Free</p> <p>G: Halogen Free</p> <p>Date Code</p>	<p>UTC</p> <p>SB560</p> <p>Cathode Band for uni-directional Only</p> <p>Date Code</p> <p>L: Lead Free</p> <p>G: Halogen Free</p>

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

PARAMETER		SYMBOL	RATINGS	UNIT
DC Blocking Voltage		V_R	60	V
Peak Repetitive Reverse Voltage		V_{RRM}	60	V
Working Peak Reverse Voltage		V_{RWM}	60	V
RMS Reverse Voltage		$V_{R(RMS)}$	42	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	DO-201AD	P_D	3.7	W
	DO-201AD1			
	SMB		2.5	W
Junction Temperature		T_J	-65 ~ +125	$^{\circ}\text{C}$
Storage Temperature		T_{STG}	-65 ~ +150	$^{\circ}\text{C}$

Notes: 1. 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.

2. These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

■ THERMAL DATA

PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Ambient	DO-201AD	θ_{JA}	40	$^{\circ}\text{C/W}$
	DO-201AD1			
	SMB		50 (Note)	$^{\circ}\text{C/W}$

Note: Device mounted on FR-4 substrate PC board, 2oz copper, with 1inch square copper plate.

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage (Note 1)	$V_{(BR)R}$	$I_R=0.50\text{mA}$	60			V
Forward Voltage Drop	V_{FM}	$I_F=5.0\text{A}, T_J=25^{\circ}\text{C}$			0.67	V
		$I_F=5.0\text{A}, T_J=100^{\circ}\text{C}$			0.62	V
Leakage Current (Note 1)	I_{RM}	$V_R=60\text{V}, T_J=25^{\circ}\text{C}$			0.5	mA
		$V_R=60\text{V}, T_J=100^{\circ}\text{C}$			25	mA

Notes: 1. Short duration pulse test used to minimize self-heating effect.

2. Thermal resistance junction to case mounted on heatsink.

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