



SB340

Preliminary

DIODE

3.0A SCHOTTKY BARRIER RECTIFIER

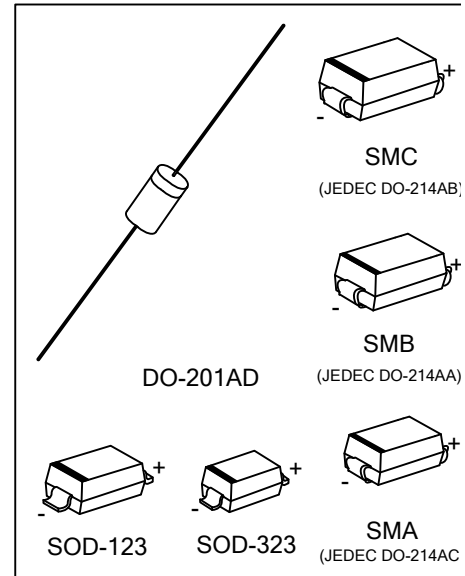
■ DESCRIPTION

The UTC **SB340** is a Schottky Rectifier with high current capacity and low forward voltage.

The UTC **SB340** is suitable for polarity protection, low voltage and high frequency inverters free wheeling applications

■ FEATURES

- * High Current Capability
- * Low Forward Voltage



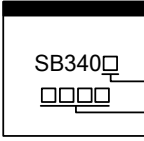
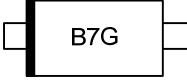
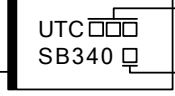
■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
-	SB340G-CA2-R	SOD-123	K	A	Tape Reel
-	SB340G-CB2-R	SOD-323	K	A	Tape Reel
SB340L-SMA-R	SB340G-SMA-R	SMA	K	A	Tape Reel
SB340L-SMB-R	SB340G-SMB-R	SMB	K	A	Tape Reel
SB340L-SMC-R	SB340G-SMC-R	SMC	K	A	Tape Reel
SB340L-Z21D-R	SB340G-Z21D-R	DO-201AD	K	A	Tape Reel
SB340L-Z21D-B	SB340G-Z21D-B	DO-201AD	K	A	Tape Box

Note: Pin Assignment: A: Anode K: Cathode

<p>SB340L-Z21D-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</p> <p>(2) Z21D: DO-201AD, CA2: SOD-123, CB2: SOD-323</p> <p>SMA: SMA, SMB: SMB, SMC: SMC</p> <p>(3) L: Lead Free, G: Halogen Free and Lead Free</p>
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■ MARKING

PACKAGE	MARKING
DO-201D	 <ul style="list-style-type: none"> → Cathode Band for uni-directional Only L: Lead Free G: Halogen Free → Date Code
SOD-123 SOD-323	
SMA SMB SMC	 <ul style="list-style-type: none"> → Date Code ← Cathode Band for uni-directional Only L: Lead Free G: Halogen Free

■ 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	3.0	A
Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave		I_{FSM}	80	A
Power Dissipation	DO-201D	P_D	3.12	W
	SOD-123		0.62	
	SOD-323		0.25	
	SMA/SMB/SMC		1.315	
Junction Temperature		T_J	+125	$^\circ\text{C}$
Storage Temperature		T_{STG}	-65 ~ +125	$^\circ\text{C}$

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-201D	θ_{JA}	40	$^\circ\text{C/W}$
	SOD-123		200	
	SOD-323		500	
	SMA/SMB/SMC		95	

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage (Note 1)	$V_{(BR)R}$	$I_R=0.50\text{mA}$	40			V
Forward Voltage Drop (Note 3)	V_{FM}	$I_F=3.0\text{A}, T_J=25^\circ\text{C}$			0.50	V
		$I_F=3.0\text{A}, T_J=100^\circ\text{C}$			0.45	V
Leakage Current (Note 1)	I_{RM}	$V_R=40\text{V}, T_J=25^\circ\text{C}$			500	μA
		$V_R=40\text{V}, T_J=100^\circ\text{C}$			50	mA

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

2. Thermal resistance junction to case mounted on heatsink.

3. Pulse width $\leq 300\mu\text{s}$, duty cycle $\leq 2\%$.

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