



SB3150

Preliminary

DIODE

3.0A SCHOTTKY BARRIER RECTIFIER

DESCRIPTION

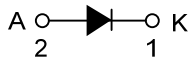
The UTC **SB3150** is a 3.0A schottky barrier rectifier, it uses UTC's advanced technology to provide the customers with high surge capability, high efficiency, high current capability and low forward voltage drop, etc.

The UTC **SB3150** is suitable for free wheeling and polarity protection, etc.

FEATURES

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

SYMBOL



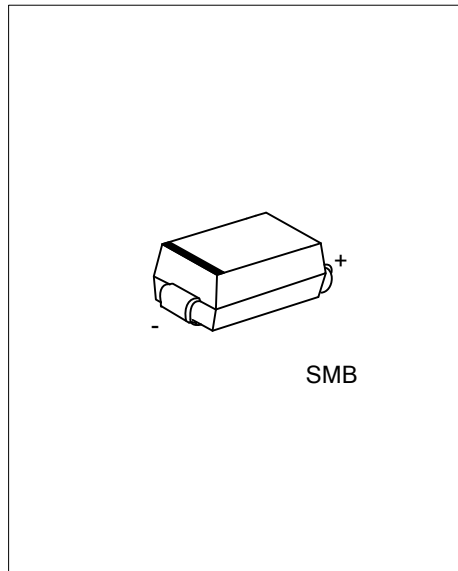
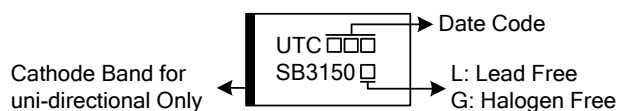
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
SB3150L-SMB-R	SB3150G-SMB-R	SMB	K	A	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

SB3150L-SMB-R	(1)Packing Type	(1) R: Tape Reel
	(2)Package Type	(2) SMB: SMB
	(3)Green Package	(3) L: Lead Free, G: Halogen Free and Lead Free

MARKING



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

PARAMETER	SYMBOL	RATINGS	UNIT
Repetitive Peak Reverse Voltage	V_{RRM}	150	V
Working Peak Reverse Voltage	V_{RWM}	150	V
DC Blocking Voltage	V_R	150	V
Average Rectified Output Current	I_O	3.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	110	A
Junction Temperature Range	T_J	-65 ~ +150	$^\circ\text{C}$
Storage Temperature Range	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 CHARACTERISTICS

PARAMETER	SYMBOL	RATINGS	UNIT
Typical Thermal Resistance	θ_{JL}	20	$^\circ\text{C}/\text{W}$

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R=0.50\text{mA}$	150			V
Instantaneous Forward Voltage Drop	V_{FM}	$I_F=3.0\text{A}$, $T_J=25^\circ\text{C}$			0.89	V
Peak Reverse Current at Rated DC Blocking Voltage	I_{RM}	Rated DC Voltage, $T_J=25^\circ\text{C}$			1.0	mA
		Rated DC Voltage, $T_J=125^\circ\text{C}$			7.0	mA
Junction Capacitance (Note 2)	C_J			250		pF

Notes: 1. Pulse Test: Pulse width $\leq 300\mu\text{s}$, Duty cycle $\leq 2\%$.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

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