



SBL1045

Preliminary

DIODE

10A SCHOTTKY BARRIER RECTIFIER

■ DESCRIPTION

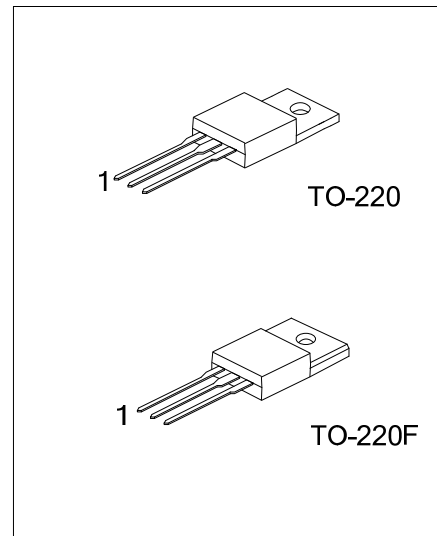
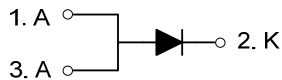
The UTC **SBL1045** is a 10A schottky barrier rectifier, it uses UTC's advanced technology to provide customers with low forward voltage drop, high current capability and high efficiency, etc.

The UTC **SBL1045** is suitable for free wheeling, high frequency inverters, low voltage and polarity protection applications.

■ FEATURES

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

■ SYMBOL



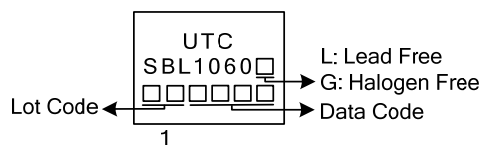
■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
SBL1045L-TA3-T	SBL1045G-TA3-T	TO-220	A	K	A	Tube
SBL1045L-TF3-T	SBL1045G-TF3-T	TO-220F	A	K	A	Tube

Note: Pin Assignment: A: Anode K: Cathode

<p>MBR1045L-TA3-T</p>	<p>(1) T: Tube</p> <p>(2) TA3: TO-220, TF3: TO-220F</p> <p>(3) L: Lead Free, G: Halogen Free and Lead Free</p>
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■ MARKING



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

PARAMETER	SYMBOL	RATINGS	UNIT
DC Blocking Voltage	V_R	45	V
Working Peak Reverse Voltage	V_{RWM}	45	V
Peak Repetitive Reverse Voltage	V_{RRM}	45	V
Average Forward Rectified Current	I_O	10	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load Per Diode	I_{FSM}	250	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 CHARACTERISTICS (PER LEG)

PARAMETER	SYMBOL	RATINGS	UNIT
Typical Thermal Resistance	TO-220	2	$^\circ\text{C}/\text{W}$
	TO-220F	4	$^\circ\text{C}/\text{W}$

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R=0.50\text{mA}$	45			V
Forward Voltage Drop	V_{FM}	$I_F=10\text{A}$, $T_C=25^\circ\text{C}$			0.6	V
Leakage Current	I_{RM}	Rated DC Voltage, $T_C=25^\circ\text{C}$			1	mA
		Rated DC Voltage, $T_C=100^\circ\text{C}$			50	mA
Junction Capacitance (Note 2)	C_J			700		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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