



## SBL1040C

DIODE

### 10A SCHOTTKY BARRIER RECTIFIER

#### DESCRIPTION

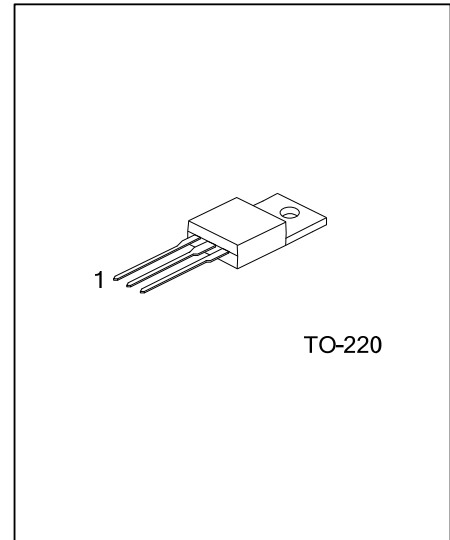
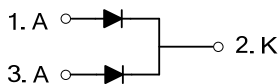
The UTC **SBL1040C** is a 10A schottky barrier rectifier, it uses UTC's advanced technology to provide the customers with high surge capability, high efficiency, high current capability, low power loss and low forward voltage drop, etc.

The UTC **SBL1040C** is suitable for free wheeling and polarity protection, etc.

#### FEATURES

- \* High surge capability
- \* High efficiency
- \* High current capability
- \* Low power Loss and low forward voltage drop

#### SMYBOL



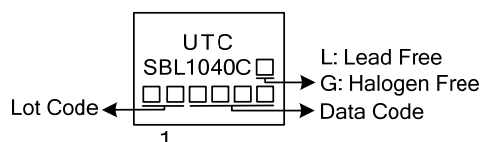
#### ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
SBL1040CL-TA3-T	SBL1040CG-TA3-T	TO-220	A	K	A	Tube

Note: Pin Assignment: A: Anode K: Cathode

<p>SBL1040CL-TA3-T</p> <p>(1) Packing Type (2) Package Type (3) Green Package</p>	<p>(1) T: Tube (2) TA3: TO-220 (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	$V_{RM}$	40	V
Recurrent Peak Reverse Voltage	$V_{RRM}$	40	V
RMS Voltage	$V_{RWM}$	40	V
Average Forward Rectified Current	Per Leg	5	A
	Total	10	
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load Per Diode	$I_{FSM}$	110	A
Operating Junction Temperature	$T_J$	-65~+150	$^{\circ}\text{C}$
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. Thermal resistance junction to case mounted on heatsink.

■ THERMAL CHARACTERISTICS ( $T_A=25^{\circ}\text{C}$ , unless otherwise noted.)

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient	$\theta_{JA}$	62.5	$^{\circ}\text{C}/\text{W}$
Junction to Case	$\theta_{JC}$	3	$^{\circ}\text{C}/\text{W}$

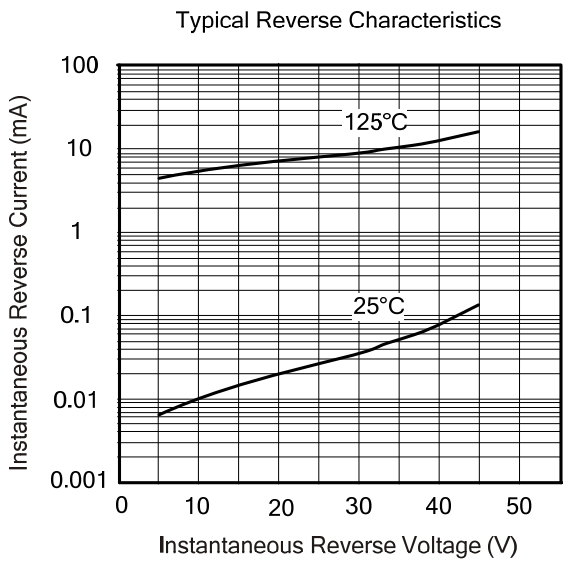
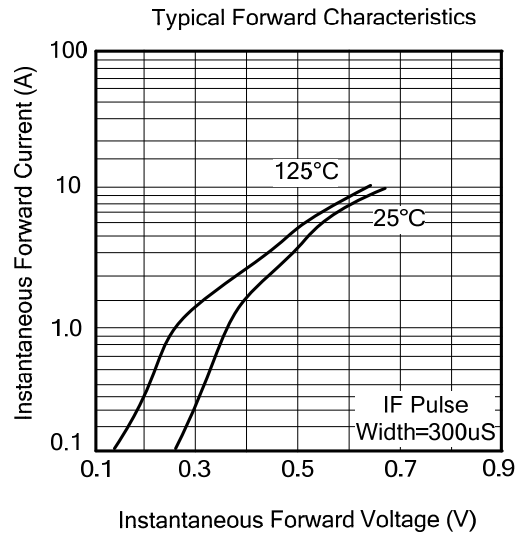
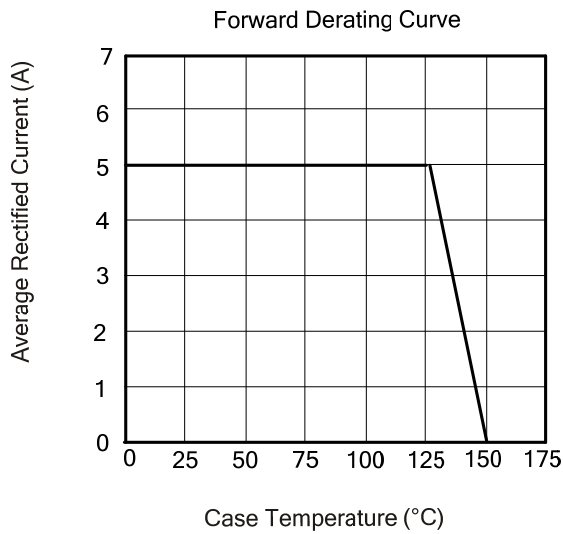
■ ELECTRICAL CHARACTERISTICS (Note 1) ( $T_A=25^{\circ}\text{C}$ , unless otherwise noted.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Instantaneous Forward Voltage	$V_F$	$T_J=25^{\circ}\text{C}$ , $I_F=5\text{A}$			0.56	V
Instantaneous Reverse Current at Rated DC Blocking Voltage Per Diode	$I_R$	$T_J=25^{\circ}\text{C}$ , $V_R=40\text{V}$			200	$\mu\text{A}$
		$T_J=100^{\circ}\text{C}$ , $V_R=40\text{V}$			50	$\text{mA}$

Notes: 1. Pulse Test: 300 $\mu\text{s}$  pulse width, 1% duty cycle.

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

## TYPICAL CHARACTERISTICS



UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.