



SBL3050C

Preliminary

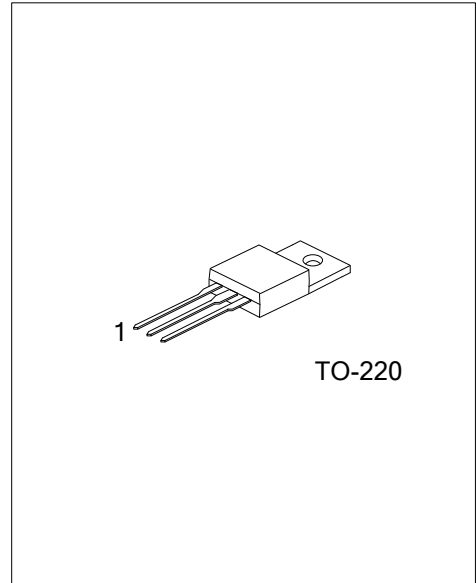
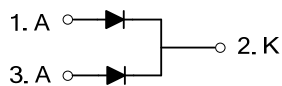
DIODE

SCHOTTKY BARRIER RECTIFIER DIODES

■ FEATURES

- * Guard Ring for Transient Protection
- * Low Power Loss, High Efficiency
- * High Surge Capability
- * High Current Capability and Low Forward Voltage Drop

■ SYMBOL



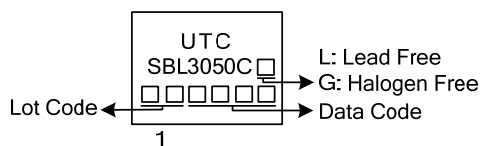
■ ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
SBL3050CL-TA3-T	SBL3050CG-TA3-T	TO-220	A	K	A	Tube

Note: Pin Assignment: A: Anode K: Cathode

SBL3050CL-TA3-T (1) Packing Type (2) Package Type (3) Lead Plating	(1) T: Tube (2) TA3: TO-220 (3) L: Lead Free, G: Halogen Free
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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	50	V
Recurrent Peak Reverse Voltage	V_{RRM}	50	V
RMS Voltage	V_{RWM}	50	V
RMS Reverse Voltage	$V_{R(RMS)}$	42	V
Average Forward Rectified Current	Per Leg	15	A
	Per Package	30	
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	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-65~+150	$^{\circ}\text{C}$

Note: 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 Case (Note 1)	θ_{JC}	2.5	$^{\circ}\text{C}/\text{W}$

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage (Note 3)	$V_{(BR)R}$	$I_R=0.50\text{mA}$	50			V
Forward Voltage Drop	V_{FM}	$I_F=15\text{A}$, $T_J=25^{\circ}\text{C}$			0.70	V
		$I_F=15\text{A}$, $T_J=125^{\circ}\text{C}$			0.65	V
Leakage Current (Note 3)	I_{RM}	$V_R=50\text{V}$, $T_J=25^{\circ}\text{C}$			1	mA
		$V_R=50\text{V}$, $T_J=125^{\circ}\text{C}$			75	mA
Total Capacitance (Note 2)	C_T			420		pF

Notes: 1. Pulse Test: 300 μs pulse width, 1% duty cycle.

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

3. Short duration pulse test used to minimize self-heating effect.

4. Thermal resistance junction to case mounted on heatsink.

5. Mounted on an FR4 PCB, single-sided copper, with 100 cm^2 copper pad area.

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