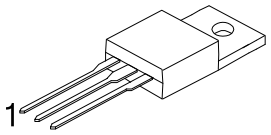
SBL3045C Preliminary ***DIODE***

LOW DROP POWER SCHOTTKY RECTIFIER



TO-220

■ DESCRIPTION

The UTC **SBL3045C** is a dual center tap schottky rectifiers, it uses UTC's advanced technology to provide the customers with low forward voltage, high switching speed and low thermal resistance, etc.

The UTC **SBL3045C** is suitable for high frequency DC-DC converter and switched mode power supplies, etc.

■ FEATURES

* High switching speed
* Low forward voltage drop
* Low thermal resistance

■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
SBL3045CL-TA3-T	SBL3045CG-TA3-T	TO-220	A1	K	A2	Tube

Note: Pin Assignment: A1: Anode, K: Cathode, A2: Anode

SBL3045CL-TA3-T (1)Packing Type (2)Package Type (3)Halogen Free	(1) T: Tube (2) TA3 : TO-220 (3) G: Halogen Free, L: Lead Free

■ ABSOLUTE MAXIMUM RATINGS (limiting values, per diode)

PARAMETER		SYMBOL	RATINGS	UNIT
Peak Reverse Voltage		V_{RM}	45	V
RMS Forward Current		$I_{F(RMS)}$	30	A
Average Forward Current	Tc=135°C, δ=0.5	$I_{F(AV)}$	30	A
Surge Non Repetitive Forward Current	tp=10ms Sinusoidal	I_{FSM}	220	A
Repetitive Peak Reverse Current	tp=2μs Square F=1KHz	I_{RRM}	1	A
Non Repetitive Peak Reverse Current	tp=100μs Square	I_{RSM}	3	A
Repetitive Peak Avalanche Power	tp=1μs, T_J=25°C	P_{ARM}	6000	W
Critical Rate of Rise of Reverse Voltage		dV/dt	10000	V/μs
Storage Temperature		T_{STG}	-65~+150	°C
Operating Junction Temperature (Note 2)		T_J	150	°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. $\frac{dPtot}{dT_J} < \frac{1}{Rth(j-a)}$ thermal runaway condition for a diode on its own heatsink

■ THERMAL RESISTANCES

PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Case	Per Diode	θ_{JC}	1.60	°C/W
	Total		0.85	°C/W
	Coupling	θ_C	0.10	°C/W

■ ELECTRICAL CHARACTERISTICS (per diode)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Current	I_R (Note 1)	V_R=V_{RM}, T_J=25 °C			0.4	mA
		V_R=V_{RM}, T_J=125 °C		100	200	mA
Forward Voltage Drop	V_F (Note 1)	T_J=25°C, I_F=15A			0.55	V
		T_J=125°C, I_F=15A		0.42	0.50	V
		T_J=25°C, I_F=30A			0.74	V
		T_J=125°C, I_F=30A		0.59	0.67	V

Note: Pulse test: tp=380μs, δ<2%