### UTC HLB121

# NPN EPITAXIAL SILICON TRANSISTOR

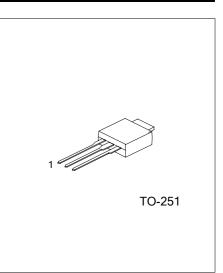
### NPN TRIPLE DIFFUSED PLANAR TYPE HIGH VOLTAGE TRANSISTOR

#### DESCRIPTION

The UTC HLB121 is a medium power transistor designed for use in switching applications.

#### **FEATURES**

- \* High breakdown voltage
- \* Low collector saturation voltage
- \* Fast switching speed



1: BASE 2: COLLECTOR 3: EMITTER

\*Pb-free plating product number:HLB121L

### ABSOLUTE MAXIMUM RATINGS

(Ta=25℃)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V <sub>CBO</sub>	600	V
Collector-Emitter Voltage	V <sub>CEO</sub>	400	V
Emitter-Base Voltage	V <sub>EBO</sub>	6	V
Collector Current (DC)	lc	300	mA
Collector Current (Pulse)	I <sub>CP</sub>	600	mA
Base Current (DC)	IB	40	mA
Base Current (Pulse)	I <sub>BP</sub>	100	mA
Total Power Dissipation (Tc=25°C)	Pc	10	W
Junction Temperature	TJ	150	°C
Storage Temperature	T <sub>STG</sub>	-40 ~ +150	°C

#### ELECTRICAL CHARACTERISTICS

(Ta=25°C, unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT		
Collector-Base Breakdown Voltage	$BV_{CBO}$	I <sub>C</sub> = 100μA	600			V		
Collector-Emitter Breakdown Voltage	BV <sub>CEO</sub>	I <sub>C</sub> = 10mA	400			V		
Emitter-Base Breakdown Voltage	$BV_{EBO}$	I <sub>E</sub> = 10μA	6			V		
Collector Cutoff Current	I <sub>CBO</sub>	V <sub>CB</sub> = 550V			10	μA		
Collector Cutoff Current	I <sub>CEO</sub>	V <sub>CB</sub> = 400V			10	μA		
Emitter Cutoff Current	I <sub>EBO</sub>	V <sub>EB</sub> = 6V			10	μA		
C-E Saturation Voltage	*V <sub>CE (sat) 1</sub>	I <sub>C</sub> = 50mA, I <sub>B</sub> = 10mA			400	mV		
	*V <sub>CE (sat) 2</sub>	I <sub>C</sub> = 100mA, I <sub>B</sub> = 20mA			750	mV		
B-E Saturation Voltage	*V <sub>BE (sat)</sub>	I <sub>C</sub> = 50mA, I <sub>B</sub> = 10mA			1	V		
DC Current Gain	*h <sub>FE1</sub>	V <sub>CE</sub> = 10V, I <sub>C</sub> = 10mA	8					
	*h <sub>FE2</sub>	V <sub>CE</sub> = 10V, I <sub>C</sub> = 50mA	10		36			
*Pulse Test : Pulse Width ≤ 380us. Duty Cycle ≤ 2%								

ulse Test : Pulse Wiath ≤ 380µs, Duty Cycle :

# UNISONIC TECHNOLOGIES CO., LTD.

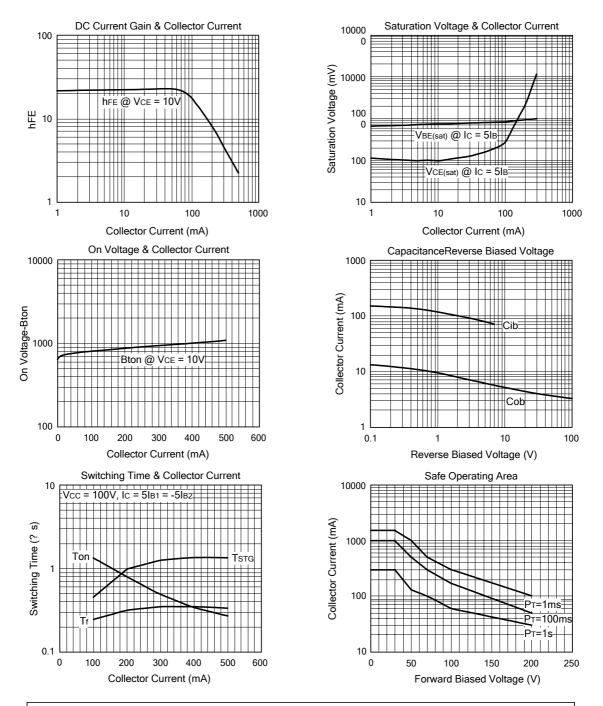
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### CHARACTERISTICS CURVE



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