



## ULB121

## NPN SILICON TRANSISTOR

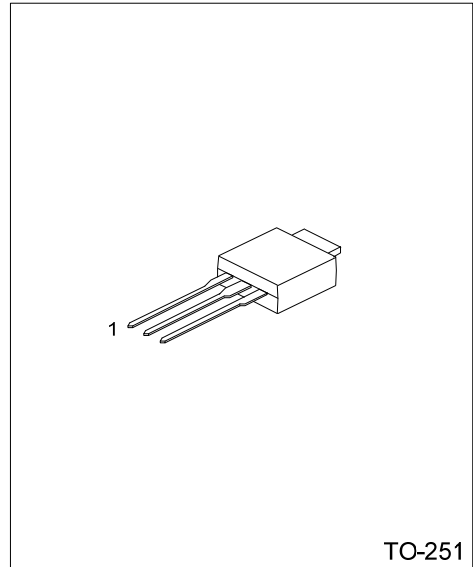
### NPN TRIPLE DIFFUSED PLANAR TYPE HIGH VOLTAGE TRANSISTOR

#### DESCRIPTION

The UTC **ULB121** is a medium power transistor designed for use in switching applications.

#### FEATURES

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



#### ORDERING INFORMATION

Ordering Number	Package	Pin Assignment			Packing
		1	2	3	
ULB121G-TM3-T	TO-251	B	C	E	Tube

<p>ULB121G-TM3-T</p> <p>(1) Packing Type</p> <p>(2) Package Type</p> <p>(3) Halogen Free</p>	<p>(1) T: Tube</p> <p>(2) TM3: TO-251</p> <p>(3) G: Halogen Free</p>
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■ ABSOLUTE MAXIMUM RATING (T<sub>A</sub>=25°C)

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	300	mA
	Pulse	600	mA
Base Current	DC	40	mA
	Pulse	100	mA
Total Power Dissipation (T <sub>C</sub> =25°C)	P <sub>D</sub>	10	W
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>STG</sub>	-40 ~ +150	°C

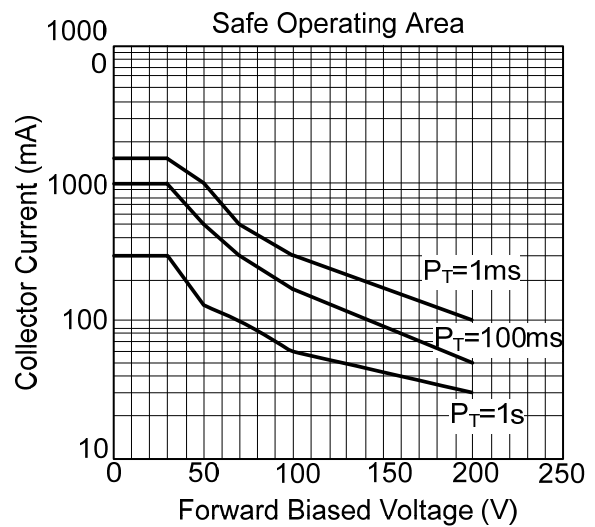
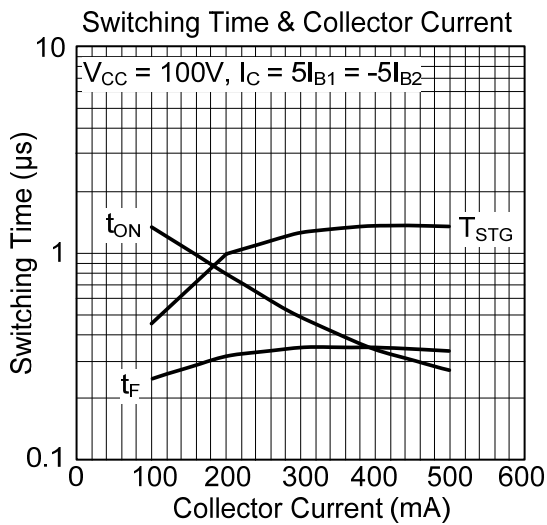
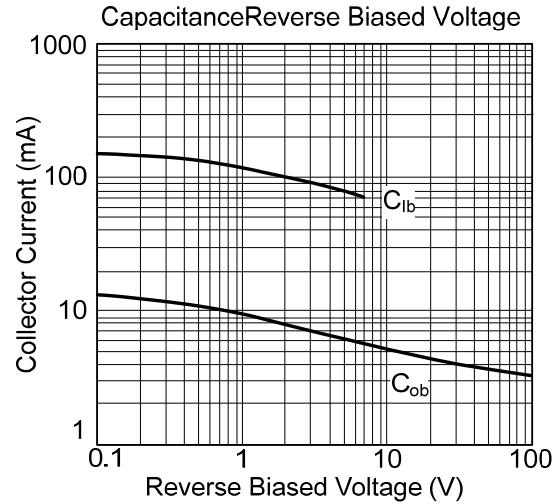
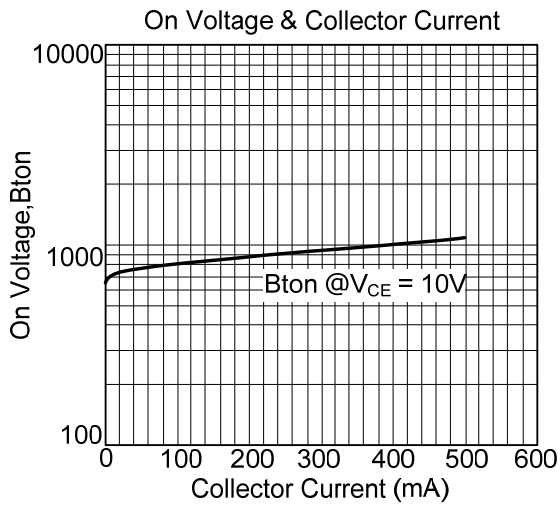
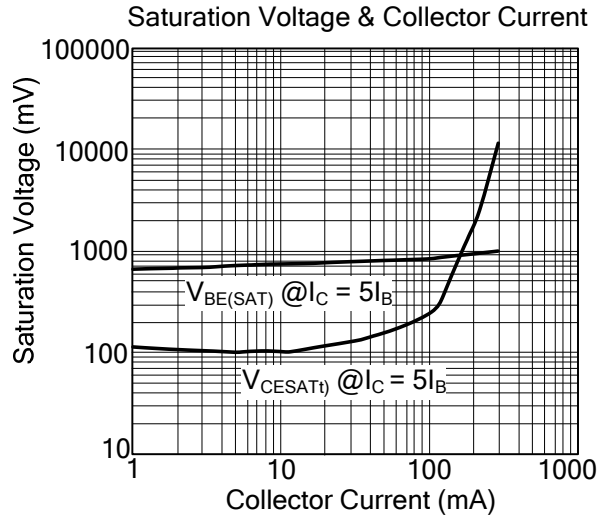
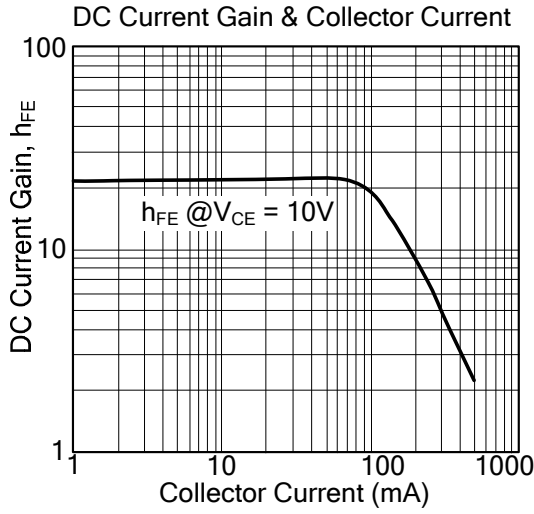
Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C, unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
<b>OFF CHARACTERISTICS</b>						
Collector-Base Breakdown Voltage	BV <sub>CBO</sub>	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 <sub>EBO</sub>	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
<b>ON CHARACTERISTICS</b>						
DC Current Gain(Note)	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	
Collector-Emitter Saturation Voltage (Note)	V <sub>CE(SAT)</sub>	I <sub>C</sub> =50mA, I <sub>B</sub> =10mA			400	mV
		I <sub>C</sub> =100mA, I <sub>B</sub> =20mA			750	
Base-Emitter Saturation Voltage (Note)	V <sub>BE(SAT)</sub>	I <sub>C</sub> =50mA, I <sub>B</sub> =10mA			1	V

Note: Pulse Test : Pulse Width ≤380μs, Duty Cycle≤2%

### TYPICAL CHARACTERISTICS



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