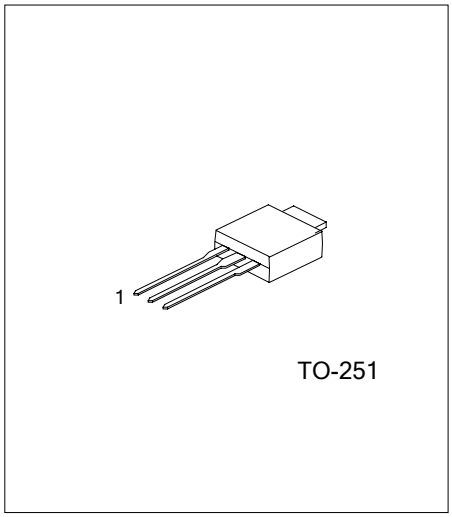
NPN TRIPLE DIFFUSED PLANAR TYPE HIGH VOLTAGE TRANSISTOR



TO-251

1: BASE 2: COLLECTOR 3: EMITTER

*Pb-free plating product number:HLB121L

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

ABSOLUTE MAXIMUM RATINGS

(Ta=25℃)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	600	V
Collector-Emitter Voltage	V_{CEO}	400	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current (DC)	I_C	300	mA
Collector Current (Pulse)	I_{CP}	600	mA
Base Current (DC)	I_B	40	mA
Base Current (Pulse)	I_{BP}	100	mA
Total Power Dissipation (Tc=25℃)	P_C	10	W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-40 ~ +150	℃

ELECTRICAL CHARACTERISTICS

(Ta=25℃, unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CBO}	I_C = 100μA	600			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C = 10mA	400			V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E = 10μA	6			V
Collector Cutoff Current	I_{CBO}	V_{CB} = 550V			10	μA
Collector Cutoff Current	I_{CEO}	V_{CB} = 400V			10	μA
Emitter Cutoff Current	I_{EBO}	V_{EB} = 6V			10	μA
C-E Saturation Voltage	*$V_{CE\ (sat)\ 1}$	I_C = 50mA, I_B = 10mA			400	mV
	*$V_{CE\ (sat)\ 2}$	I_C = 100mA, I_B = 20mA			750	mV
B-E Saturation Voltage	*$V_{BE\ (sat)}$	I_C = 50mA, I_B = 10mA			1	V
DC Current Gain	*h_{FE1}	V_{CE} = 10V, I_C = 10mA	8			
	*h_{FE2}	V_{CE} = 10V, I_C = 50mA	10		36	

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

CHARACTERISTICS CURVE