

UTC HLB122

NPN EPITAXIAL SILICON TRANSISTOR

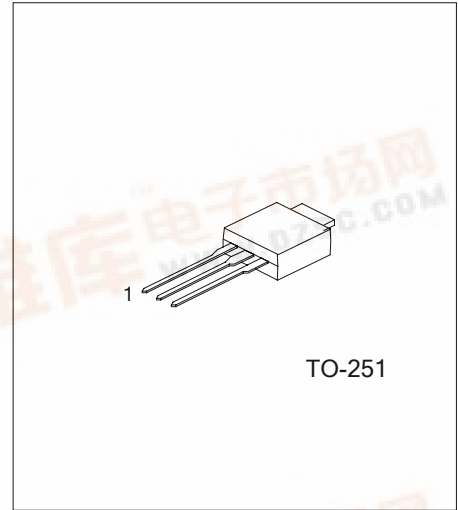
NPN TRIPLE DIFFUSED PLANAR TYPE HIGH VOLTAGE TRANSISTOR

DESCRIPTION

The UTC HLB122 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:HLB122L

ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

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	800	mA
Collector Current (Pulse)	I_{CF}	1600	mA
Base Current (DC)	I_B	100	mA
Base Current (Pulse)	I_{BP}	200	mA
Total Power Dissipation (Tc=25°C)	P_C	20	W
Junction Temperature	T_J	150	°C
Storage Temperature	T_{STG}	-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}	$I_C = 100\mu A$	600			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C = 10mA$	400			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E = 10\mu A$	6			V
Collector Cutoff Current	I_{CBO}	$V_{CB} = 600V$			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	* $V_{CE(sat)1}$	$I_C = 100mA, I_B = 20mA$			400	mV
	* $V_{CE(sat)2}$	$I_C = 300mA, I_B = 60mA$			800	mV
B-E Saturation Voltage	* $V_{BE(sat)}$	$I_C = 100mA, I_B = 20mA$			1	V
DC Current Gain	* h_{FE1}	$V_{CE} = 10V, I_C = 0.1A$	10		40	
	* h_{FE2}	$V_{CE} = 10V, I_C = 0.5A$	10			
Fall Time	T_f	$V_{CC} = 100V, I_C = 0.3A, I_{B1} = -I_{B2} = 0.06A$			0.6	μS

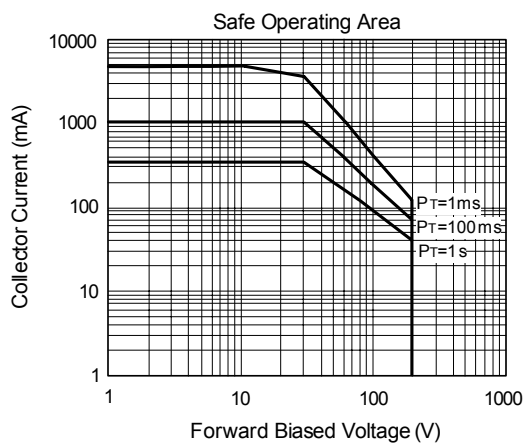
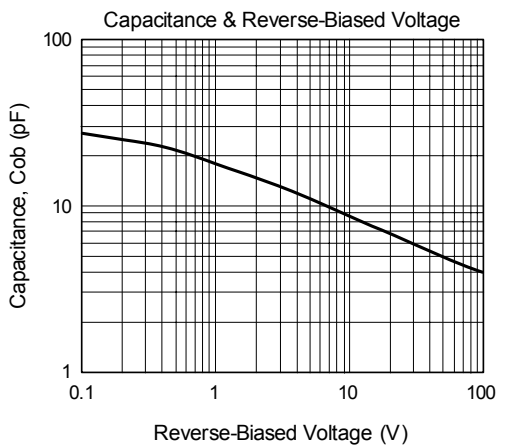
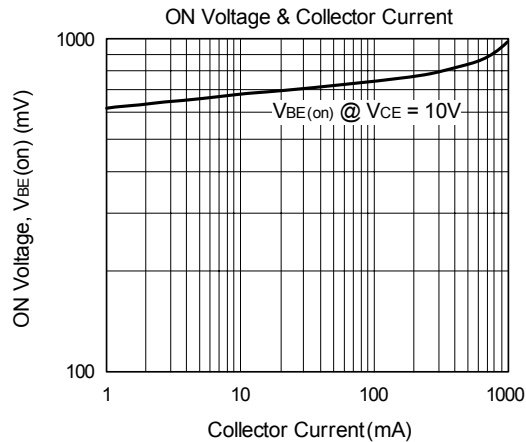
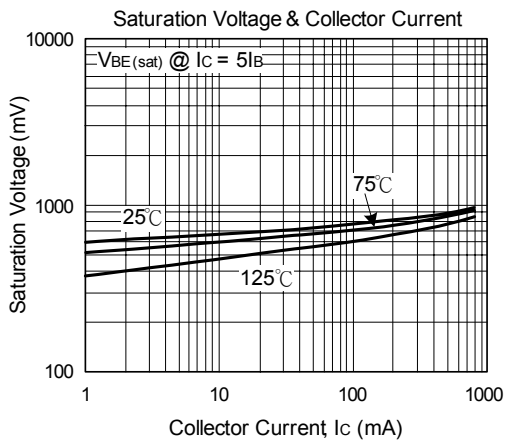
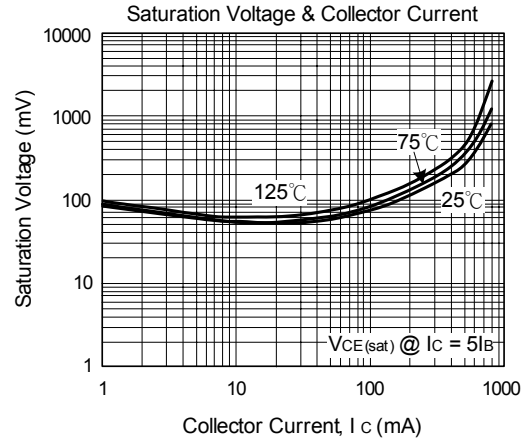
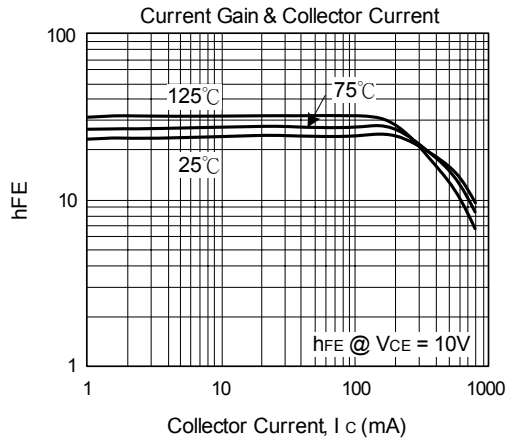
*Pulse Test : Pulse Width $\leq 380\mu s$, Duty Cycle $\leq 2\%$

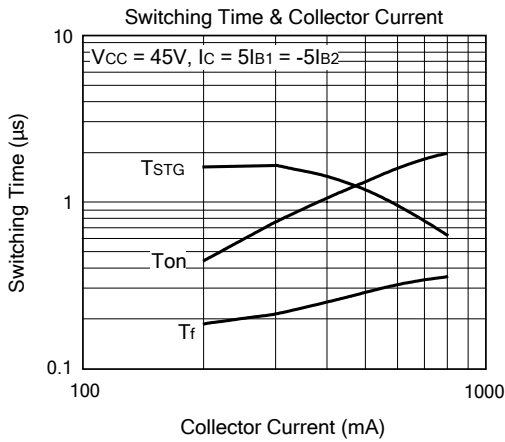
UTC UNISONIC TECHNOLOGIES CO., LTD.

CLASSIFICATION OF HFE1

RANK	B1	B2	B3	B4	B5	B6
Range	10 ~ 17	13 ~ 22	18 ~ 27	23 ~ 32	28 ~ 37	33 ~ 40

CHARACTERISTICS CURVE





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