



# HLB122I

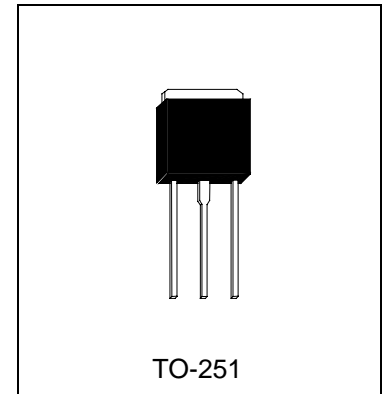
NPN Triple Diffused Planar Type High Voltage Transistor

## Description

The HLB122I 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°C)

- Maximum Temperatures
  - Storage Temperature ..... -55 ~ +150 °C
  - Junction Temperature ..... +150 °C
- Maximum Power Dissipation
  - Total Power Dissipation (Tc=25°C)..... 30 W
- Maximum Voltages and Currents
  - BVCBO Collector to Base Voltage ..... 600 V
  - BVCEO Collector to Emitter Voltage ..... 400 V
  - BVEBO Emitter to Base Voltage ..... 6 V
  - IC Collector Current (DC)..... 800 mA
  - IC Collector Current (Pulse)..... 1600 mA
  - IB Base Current (DC)..... 100 mA
  - IB Base Current (Pulse)..... 200 mA

## Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	600	-	-	V	IC=100uA
BVCEO	400	-	-	V	IC=10mA
BVEBO	6	-	-	V	IE=10uA
ICBO	-	-	10	uA	VCB=600V
ICEO	-	-	10	uA	VCE=400V
IEBO	-	-	10	uA	VEB=6V
*VCE(sat)1	-	-	400	mV	IC=100mA, IB=20mA
*VCE(sat)2	-	-	800	mV	IC=300mA, IB=60mA
*VBE(sat)	-	-	1	V	IC=100mA, IB=20mA
*hFE1	10	-	40		VCE=10V, IC=0.1A
*hFE2	10	-	-		VCE=10V, IC=0.5A
tf	-	-	0.6	uS	VCC=100V, IC=0.3A, IB1=-IB2=0.06A

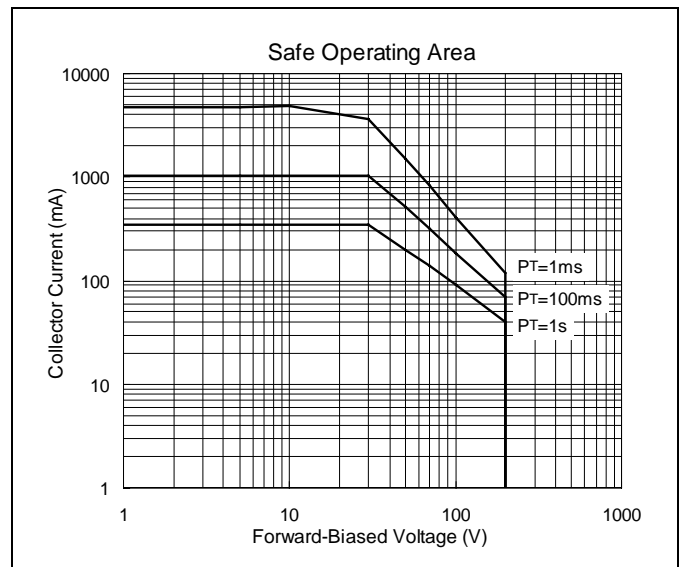
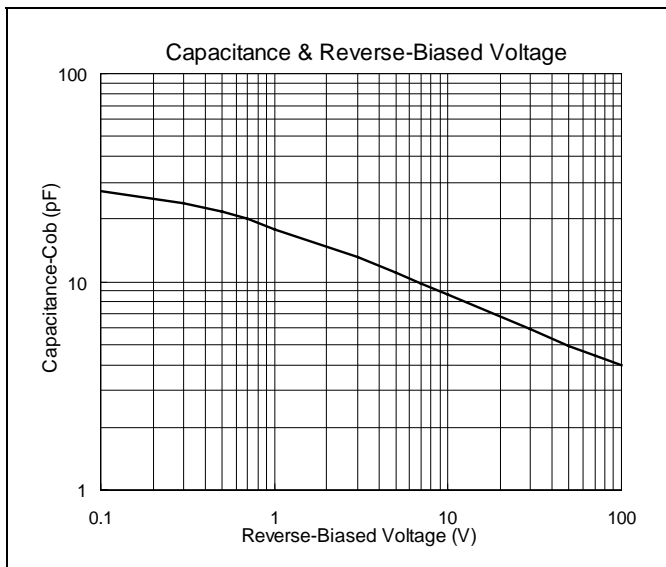
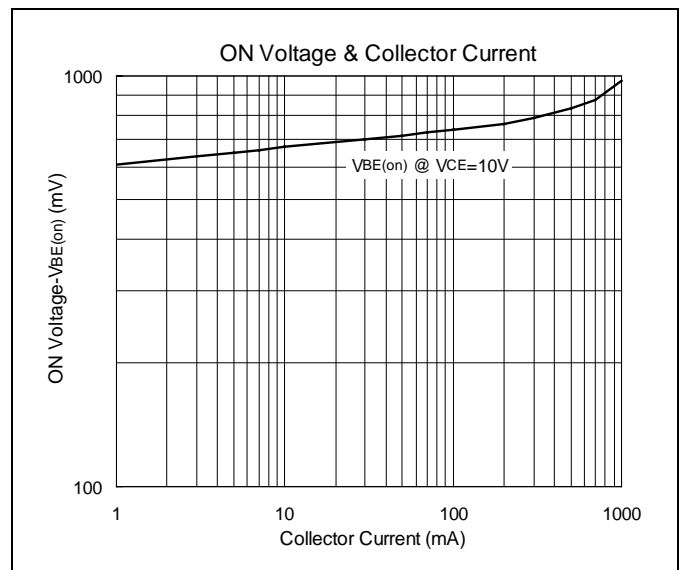
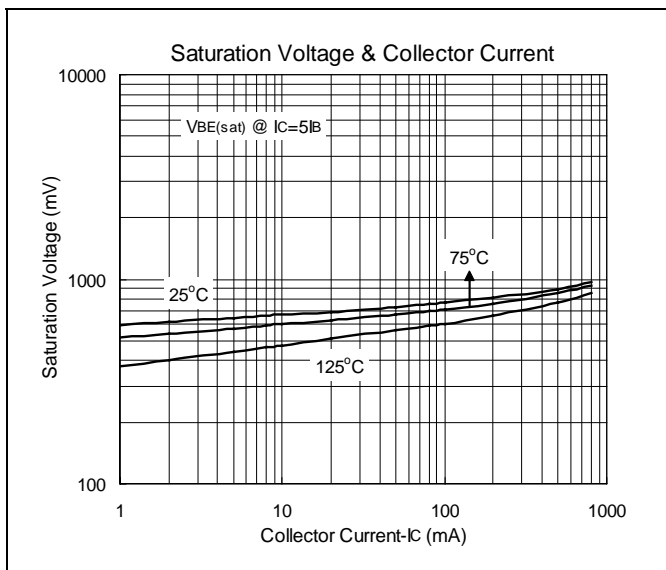
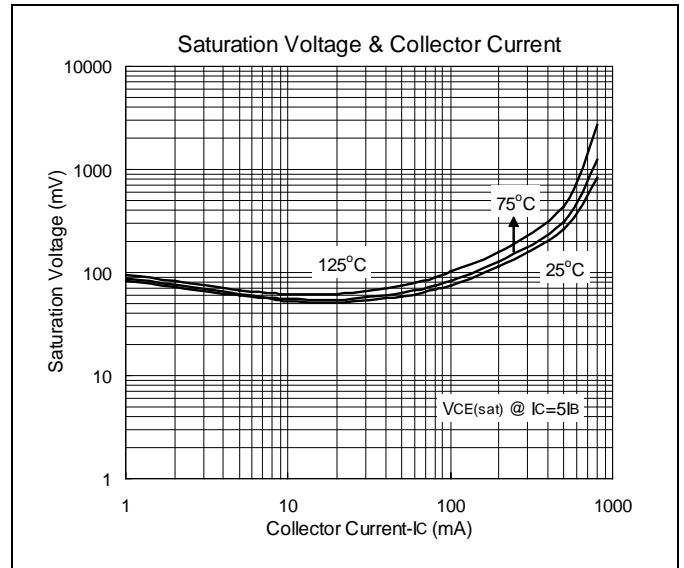
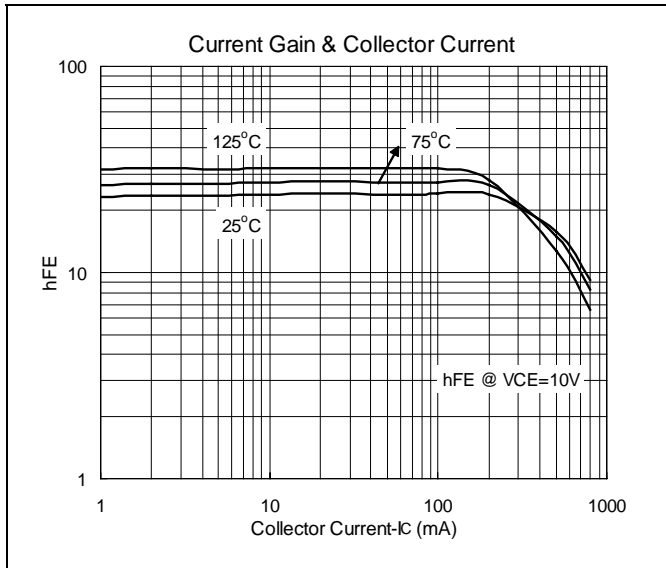
\*Pulse Test: Pulse Width ≤380us, Duty Cycle≤2%

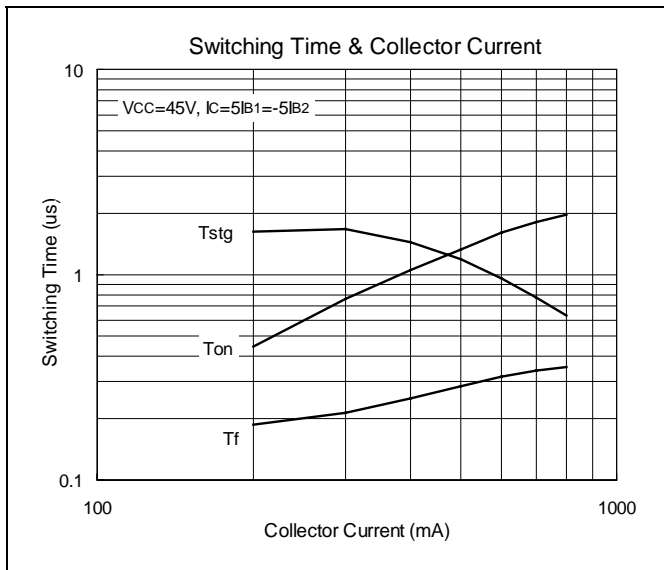
## Classification of hFE1

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



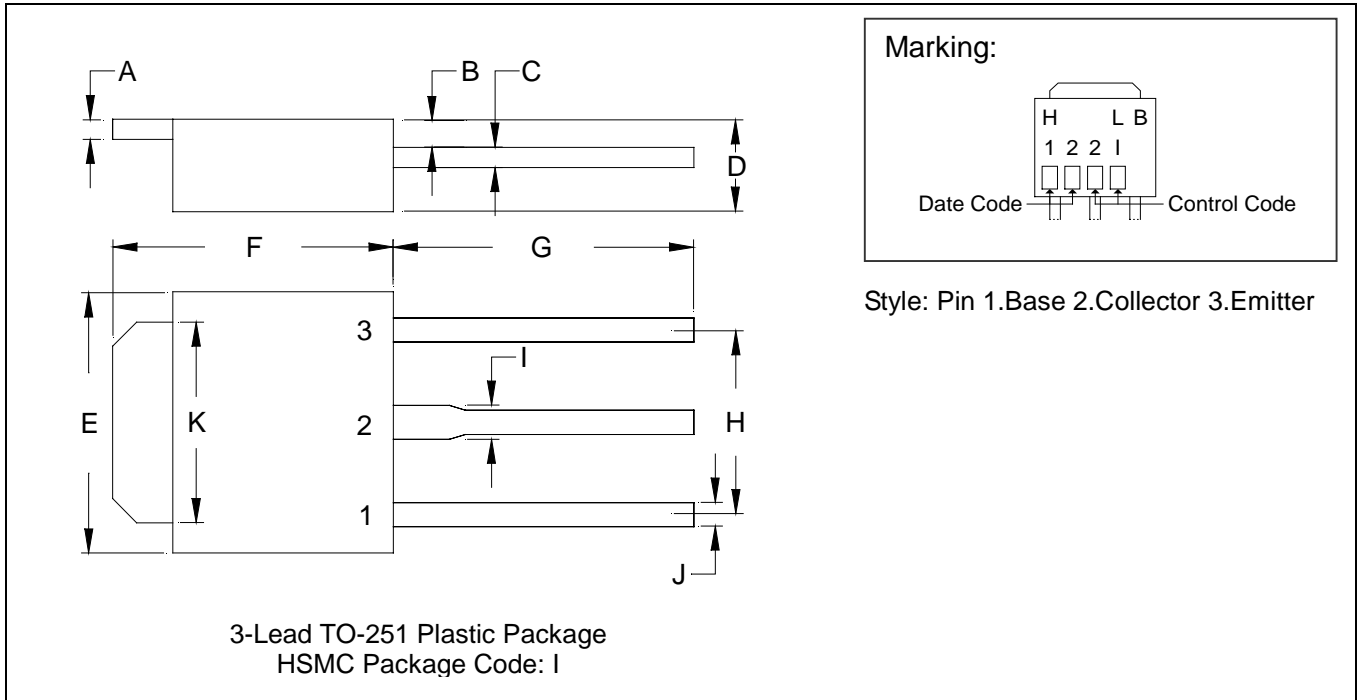
### Characteristics Curve



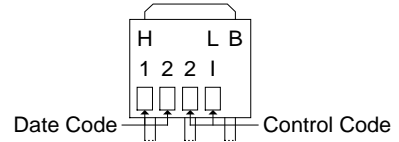




### TO-251 Dimension



Marking:



Style: Pin 1.Base 2.Collector 3.Emitter

\*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.0177	0.0217	0.45	0.55	G	0.2559	-	6.50	-
B	0.0354	0.0591	0.90	1.50	H	-	*0.1811	-	*4.60
C	0.0177	0.0236	0.45	0.60	I	-	0.0354	-	0.90
D	0.0866	0.0945	2.20	2.40	J	-	0.0315	-	0.80
E	0.2520	0.2677	6.40	6.80	K	0.2047	0.2165	5.20	5.50
F	0.2677	0.2835	6.80	7.20					

- Notes: 1.Dimension and tolerance based on our Spec. dated May. 24,1995.  
 2.Controlling dimension: millimeters.  
 3.Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.  
 4.If there is any question with packing specification or packing method, please contact your local HSMC sales office.

**Material:**

- Lead: 42 Alloy; solder plating
- Mold Compound: Epoxy resin family, flammability solid burning class: UL94V-0

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