



HLB123T

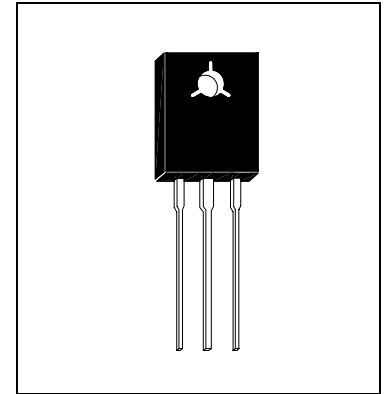
NPN EPITAXIAL PLANAR TRANSISTOR

Description

The HLB123T is designed for high voltage. High speed switching inductive circuits and amplifier applications.

Features

- High Speed Switching
- Low Saturation Voltage
- High Reliability



Absolute Maximum Ratings (Ta=25°C)

- Maximum Temperatures
 - Storage Temperature -50 ~ +150 °C
 - Junction Temperature +150 °C Maximum
- Maximum Power Dissipation
 - Total Power Dissipation (Ta=25°C) 3.5 W
 - 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 8 V
 - IC Collector Current (DC) 1 A
 - IC Collector Current (Pulse) 2 A

Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	600	-	-	V	IC=1mA, IE=0
BVCEO	400	-	-	V	IC=10mA, IB=0
BVEBO	8	-	-	V	IE=1mA, IC=0
ICBO	-	-	10	uA	VCB=600V, IE=0
IEBO	-	-	10	uA	VBE=9V, IC=0
*VCE(sat)1	-	-	0.8	V	IC=0.1A, IB=10mA
*VCE(sat)2	-	-	0.9	V	IC=0.3A, IB=30mA
*VBE(sat)1	-	-	1.2	V	IC=0.1A, IB=10mA
*VBE(sat)2	-	-	1.8	V	IC=0.3A, IB=30mA
*hFE1	10	-	50		IC=0.3A, VCE=5V
*hFE2	10	-	-		IC=0.5A, VCE=5V
*hFE3	6	-	-		IC=1A, VCE=5V

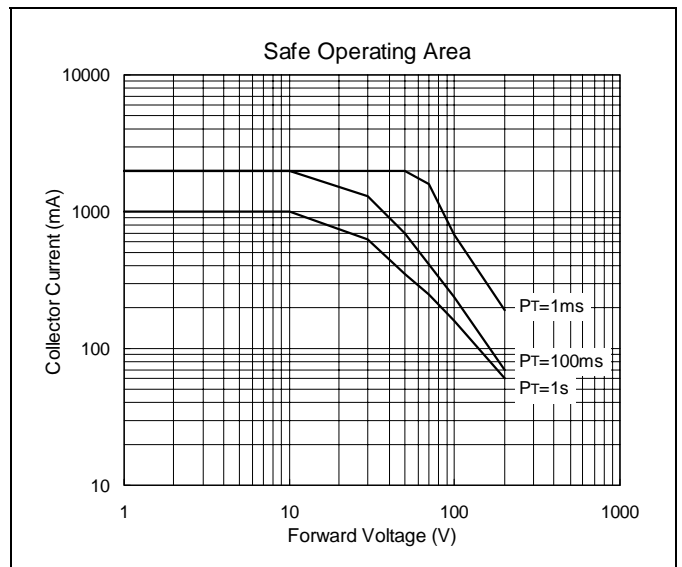
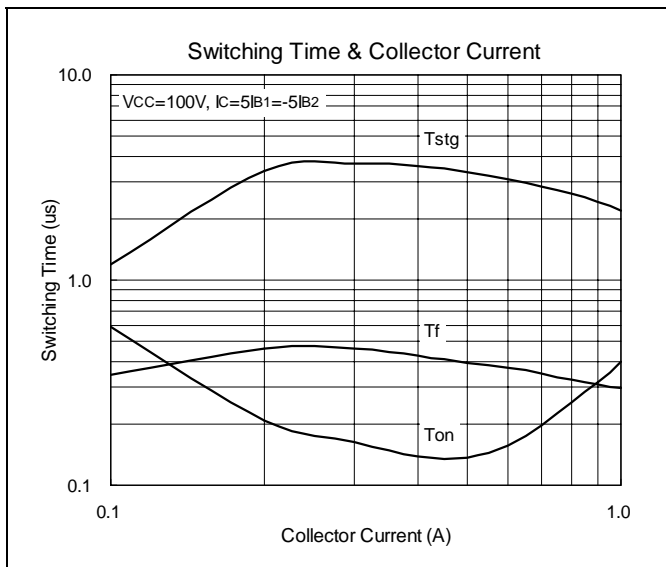
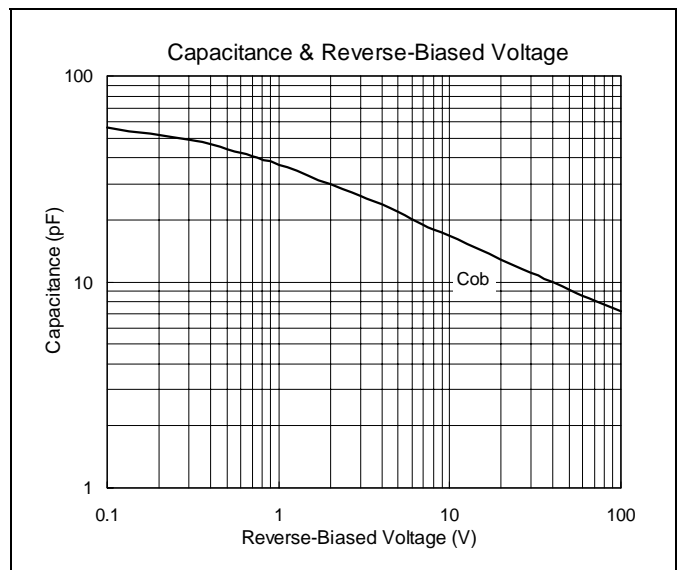
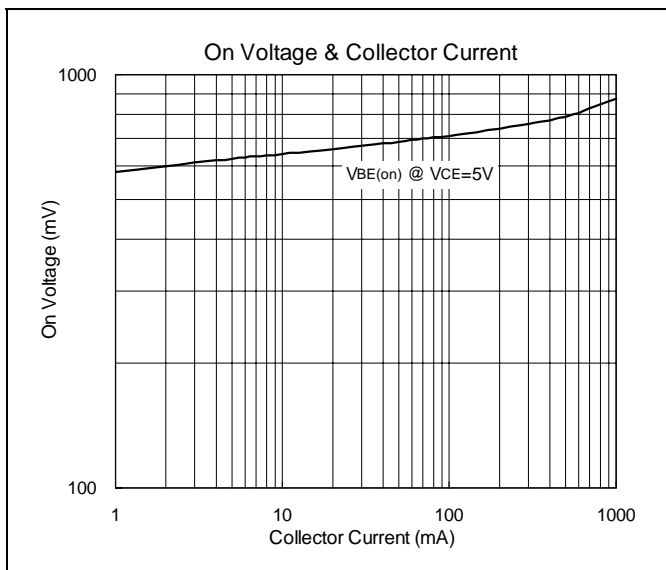
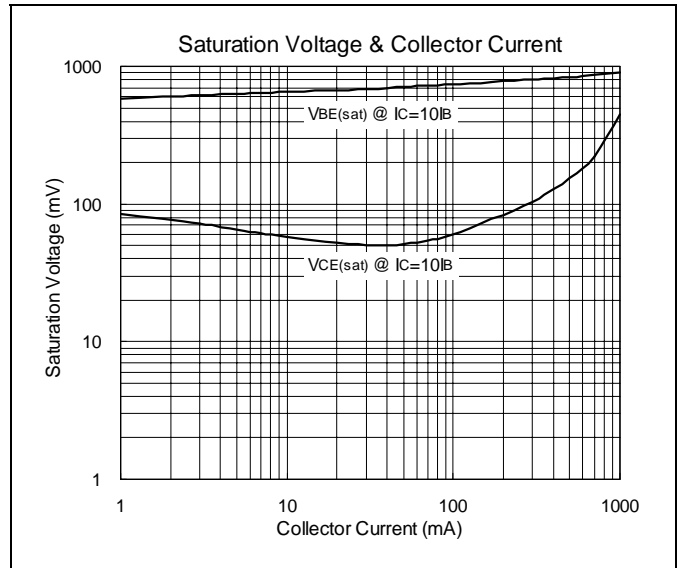
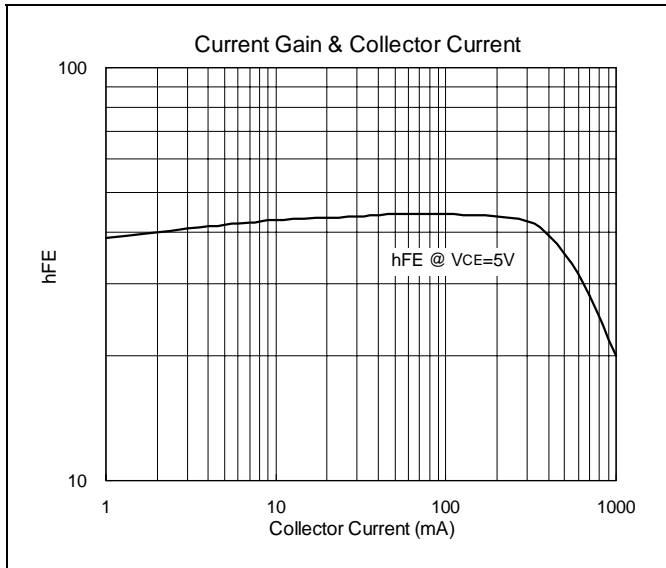
*Pulse Test : Pulse Width ≤380us, Duty Cycle≤2%

Classification Of hFE1

Rank	B1	B2	B3	B4	B5	B6	B7	B8
Range	10-17	13-22	18-27	23-32	28-37	33-42	38-47	43-50

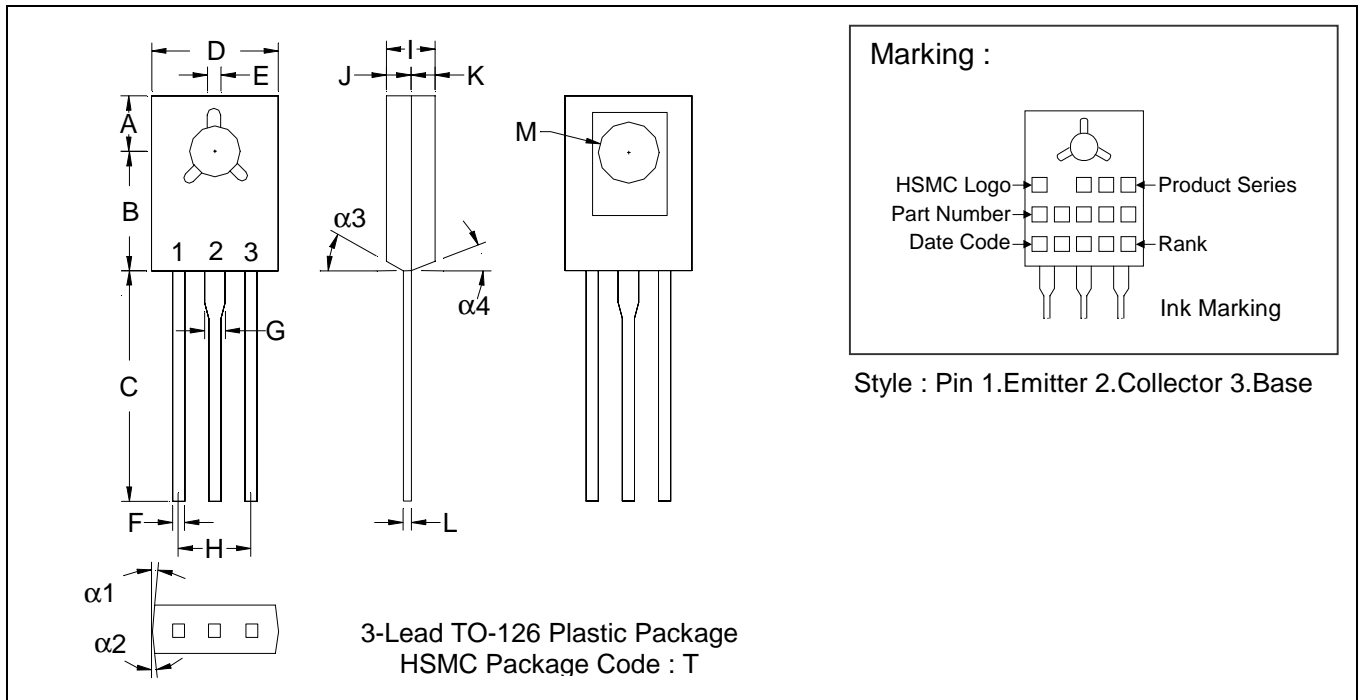


Characteristics Curve





TO-126 Dimension



*:Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
$\alpha 1$	-	*3°	-	*3°	F	0.0280	0.0319	0.71	0.81
$\alpha 2$	-	*3°	-	*3°	G	0.0480	0.0520	1.22	1.32
$\alpha 3$	-	*3°	-	*3°	H	0.1709	0.1890	4.34	4.80
$\alpha 4$	-	*3°	-	*3°	I	0.0950	0.1050	2.41	2.66
A	0.1500	0.1539	3.81	3.91	J	0.0450	0.0550	1.14	1.39
B	0.2752	0.2791	6.99	7.09	K	0.0450	0.0550	1.14	1.39
C	0.5315	0.6102	13.50	15.50	L	-	*0.0217	-	*0.55
D	0.2854	0.3039	7.52	7.72	M	0.1378	0.1520	3.50	3.86
E	0.0374	0.0413	0.95	1.05					

Notes : 1.Dimension and tolerance based on our Spec. dated Mar. 6,1995.
 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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Head Office And Factory :

- **Head Office** (Hi-Sincerity Microelectronics Corp.) : 10F.,No. 61, Sec. 2, Chung-Shan N. Rd. Taipei Taiwan R.O.C.
 Tel : 886-2-25212056 Fax : 886-2-25632712, 25368454
- **Factory 1** : No. 38, Kuang Fu S. Rd., Fu-Kou Hsin-Chu Industrial Park Hsin-Chu Taiwan. R.O.C
 Tel : 886-3-5983621~5 Fax : 886-3-5982931
- **Factory 2** : No. 17-1, Ta-Tung Rd., Fu-Kou Hsin-Chu Industrial Park Hsin-Chu Taiwan. R.O.C
 Tel : 886-3-5977061 Fax : 886-3-5979220