



HE8051

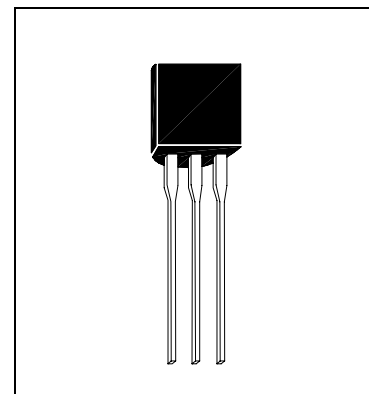
NPN EPITAXIAL PLANAR TRANSISTOR

Description

The HE8051 is designed for use in 2W output amplifier of portable radios in class B push-pull operation.

Features

- High Total Power Dissipation (PT: 2W, TC=25°C)
- High Collector Current (IC: 1.5A)



Absolute Maximum Ratings

- Maximum Temperatures
Storage Temperature -55 ~ +150 °C
Junction Temperature +150 °C Maximum
- Maximum Power Dissipation
Total Power Dissipation (Ta=25°C) 1 W
- Maximum Voltages and Currents (Ta=25°C)
VCBO Collector to Base Voltage 40 V
VCEO Collector to Emitter Voltage 25 V
VEBO Emitter to Base Voltage 6 V
IC Collector Current 1.5 A
IB Base Current 500mA

Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	40	-	-	V	IC=100uA
BVCEO	25	-	-	V	IC=2mA
BVEBO	6	-	-	V	IE=100uA
ICBO	-	-	100	nA	VCB=35V
IEBO	-	-	100	nA	VEB=6V
*VCE(sat)	-	-	0.5	V	IC=0.8A, IB=80mA
*VBE(sat)	-	-	1.2	V	IC=0.8A, IB=80mA
VBE(on)	-	-	1	V	VCE=1V, IC=10mA
*hFE1	45	-	-		VCE=1V, IC=5mA
*hFE2	85	-	500		VCE=1V, IC=100mA
*hFE3	40	-	-		VCE=1V, IC=800mA
fT	100	-	-	MHz	VCE=10V, IC=50mA

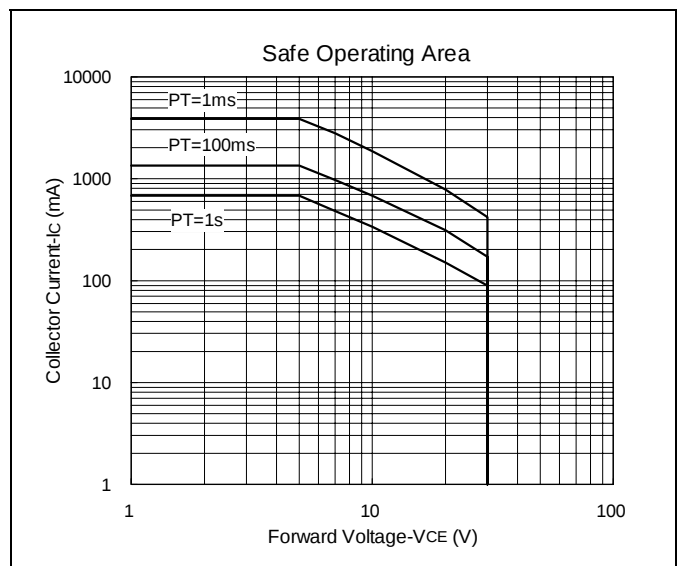
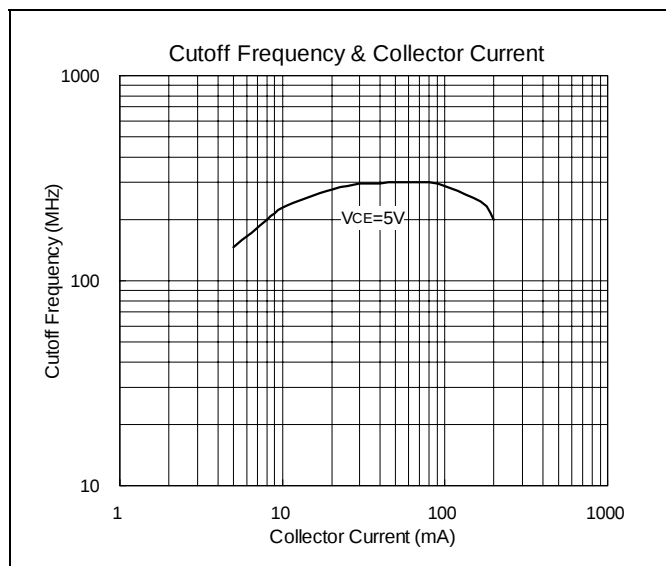
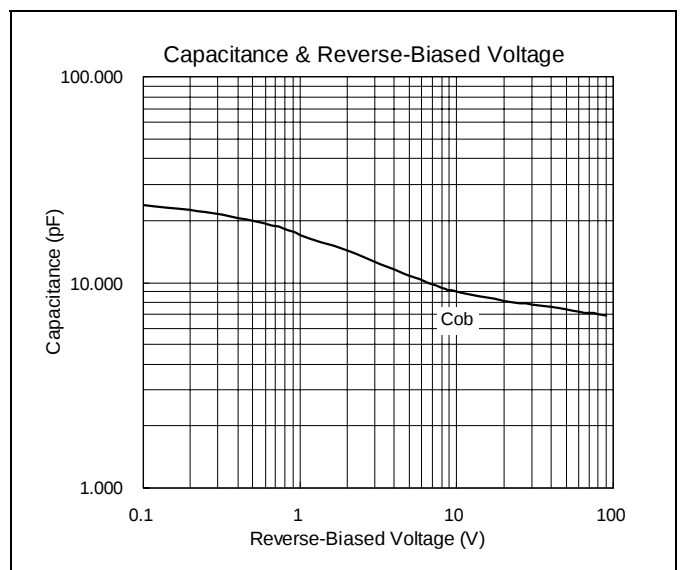
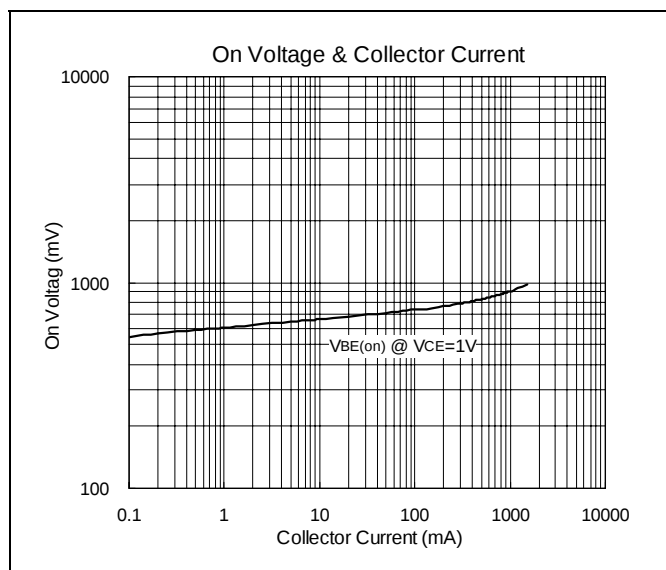
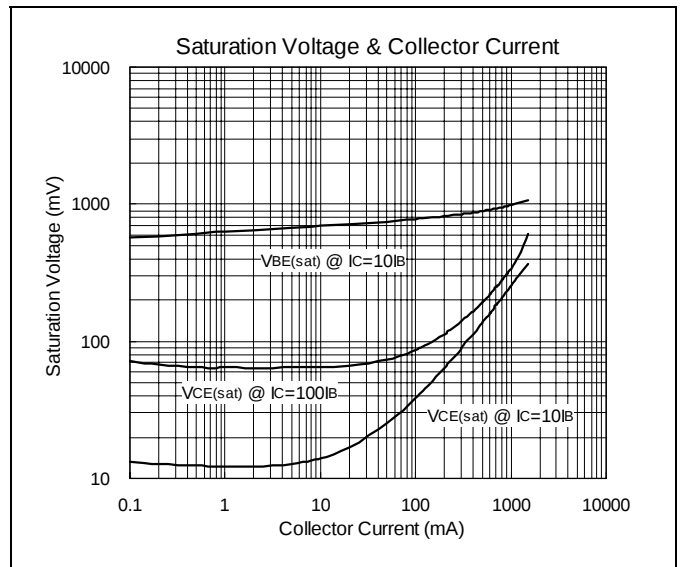
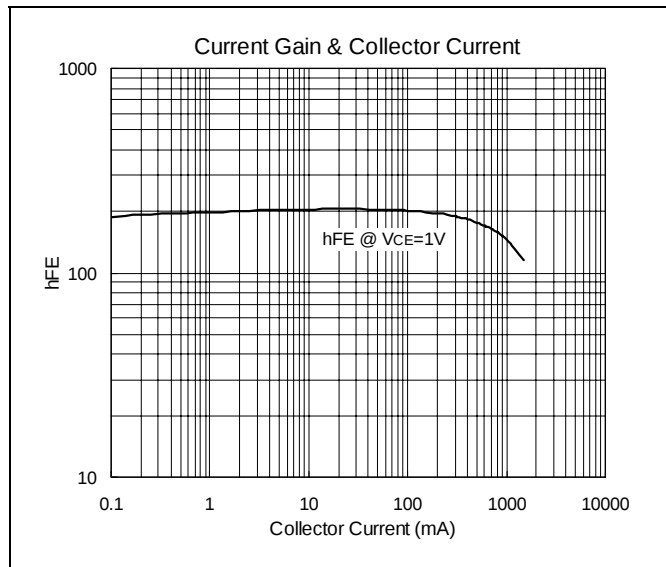
*Pulse Test : Pulse Width ≤380us, Duty Cycles≤2%

Classification of hFE2

Rank	B	C	D	E
Range	85-160	120-200	160-300	250-500

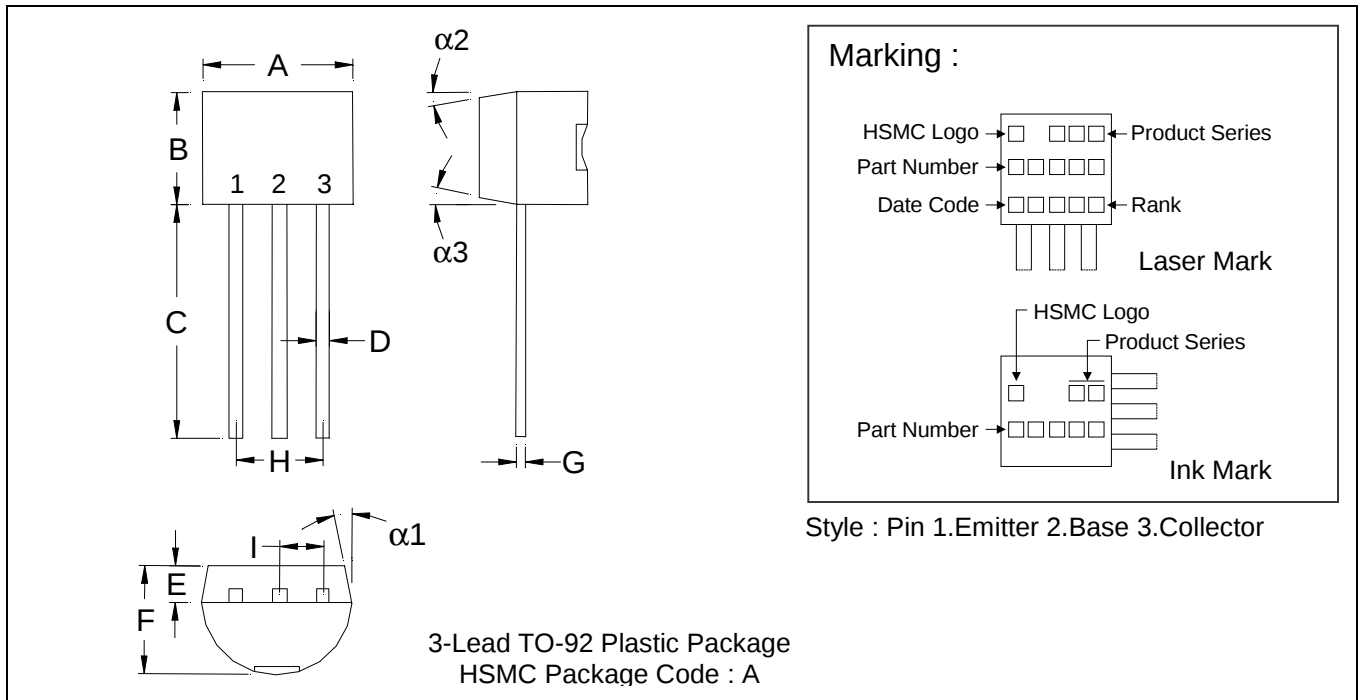


Characteristics Curve





TO-92 Dimension



*:Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.1704	0.1902	4.33	4.83	G	0.0142	0.0220	0.36	0.56
B	0.1704	0.1902	4.33	4.83	H	-	*0.1000	-	*2.54
C	0.5000	-	12.70	-	I	-	*0.0500	-	*1.27
D	0.0142	0.0220	0.36	0.56	α1	-	*5°	-	*5°
E	-	*0.0500	-	*1.27	α2	-	*2°	-	*2°
F	0.1323	0.1480	3.36	3.76	α3	-	*2°	-	*2°

Notes : 1.Dimension and tolerance based on our Spec. dated Apr. 25,1996.

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

Important Notice:

- All rights are reserved. Reproduction in whole or in part is prohibited without the prior written approval of HSMC.
- HSMC reserves the right to make changes to its products without notice.
- **HSMC semiconductor products are not warranted to be suitable for use in Life-Support Applications, or systems.**
- HSMC assumes no liability for any consequence of customer product design, infringement of patents, or application assistance.

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