



HBC237

NPN EPITAXIAL PLANAR TRANSISTOR

Description

The HBC237 is primarily intended for in driver stage of audio amplifiers.

Features

High Breakdown Voltage: 45V at IC=2mA



Absolute Maximum Ratings

- Maximum Temperatures
 Storage Temperature -55 ~ +150 °C
 Junction Temperature +150 °C Maximum
- Maximum Power Dissipation
 Total Power Dissipation (Ta=25°C) 400 mW
- Maximum Voltages and Currents (Ta=25°C)
 VCES Collector to Emitter Voltage..... 50 V
 VCEO Collector to Emitter Voltage 45 V
 VEBO Emitter to Base Voltage 5 V
 IC Collector Current 100 mA

Characteristics (Ta=25°C, *Pulse Test : Pulse Width ≤380us, Duty Cycle≤2%)

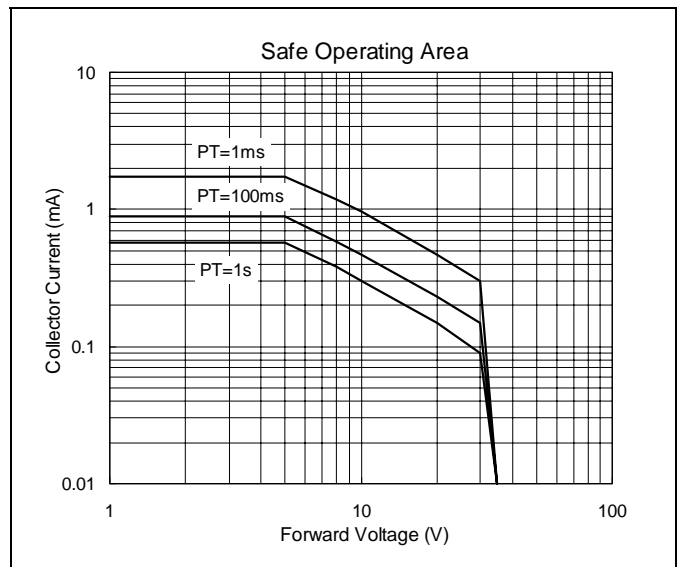
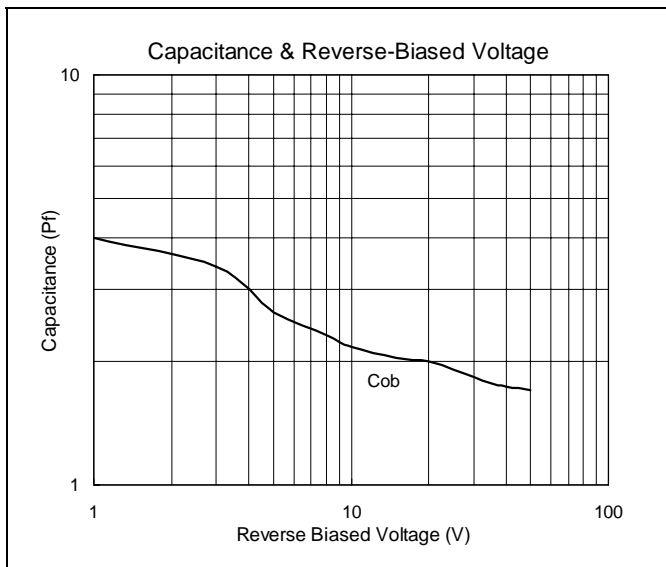
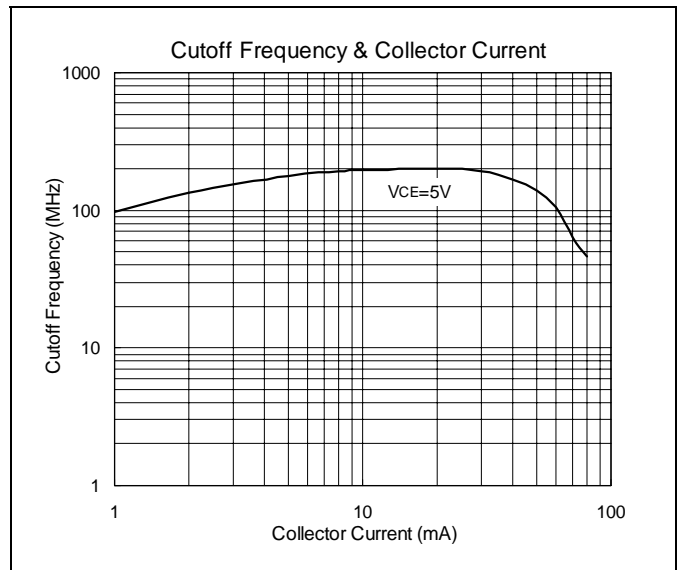
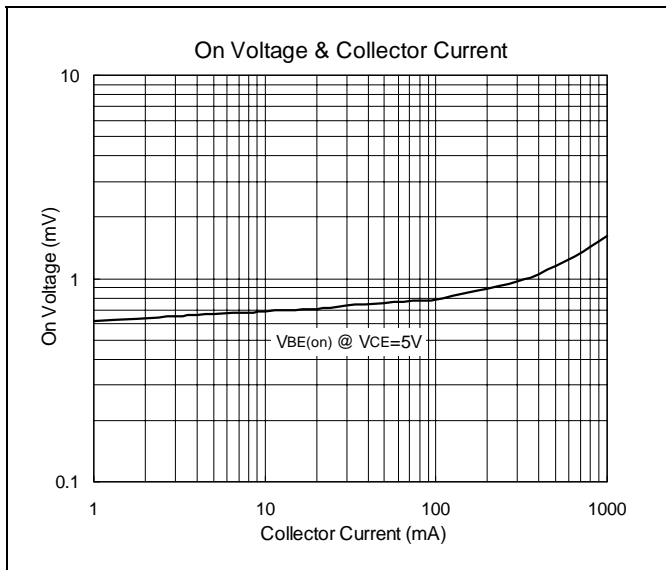
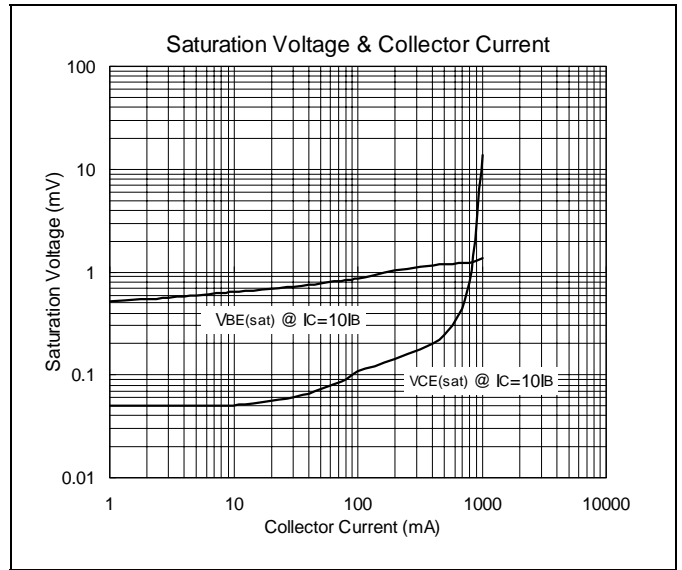
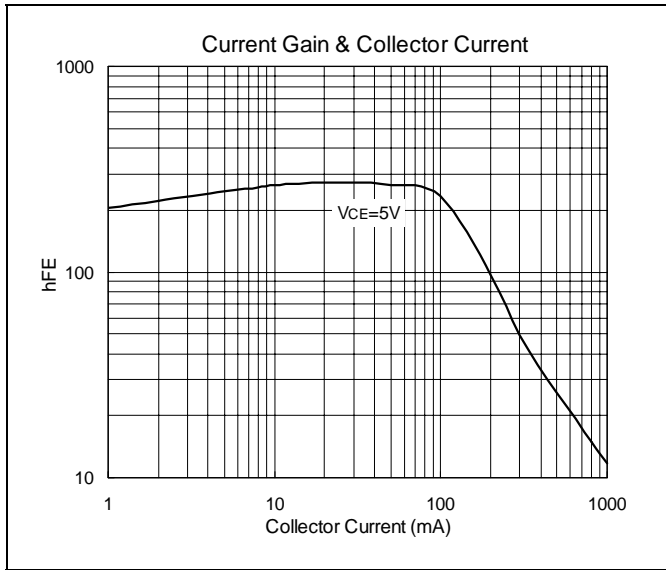
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCEs	50	-	-	V	IC=100uA, VEB=0
BVCEO	45	-	-	V	IC=2mA, IB=0
BVEBO	6	-	-	V	IE=100uA, IC=0
ICES	-	-	15	nA	VCB=50V, IE=0
IEBO	-	-	100	nA	VEB=4V, IC=0
VBE(on)	550	-	700	mV	IC=2mA, VCE=5V
*VCE(sat)1	-	-	200	mV	IC=10mA, IB=0.5mA
*VCE(sat)2	-	-	600	mV	IC=100mA, IB=5mA
*VBE(sat)1	-	-	1.05	V	IC=100mA, IB=5mA
*VBE(sat)2	-	-	830	mV	IC=10mA, IB=0.5mA
*hFE1	50	-	-		VCE=5V, IC=10uA
*hFE2	120	-	800		VCE=5V, IC=2mA
*hFE3	60	-	-		VCE=5V, IC=100mA
fT	150	-	-	MHz	VCE=5V, IC=10mA, f=100MHz
Cob	-	-	4.5	PF	VCB=10V, IE=0, f=1MHz

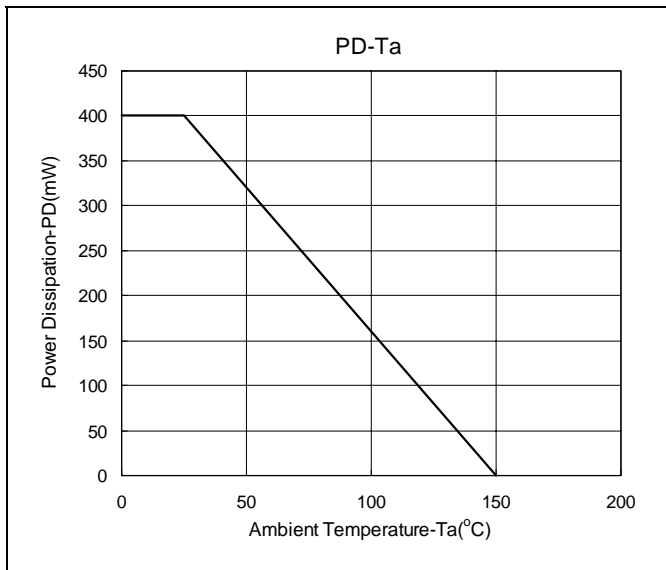
Classification of hFE2

Rank	A	B	C
Range	120-220	180-460	300-800



Characteristics Curve







TO-92 Dimension

3-Lead TO-92 Plastic Package
 HSMC Package Code : A

Marking :

HSMC Logo → □ □ □ □ ← Product Series
 Part Number → □ □ □ □ □ □
 Date Code → □ □ □ □ □ □ ← Rank
 Laser Mark

HSMC Logo
 Product Series
 Part Number → □ □ □ □ □ □
 Ink Mark

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

*: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