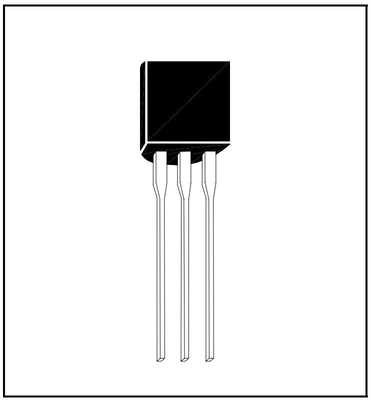
HBC237

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

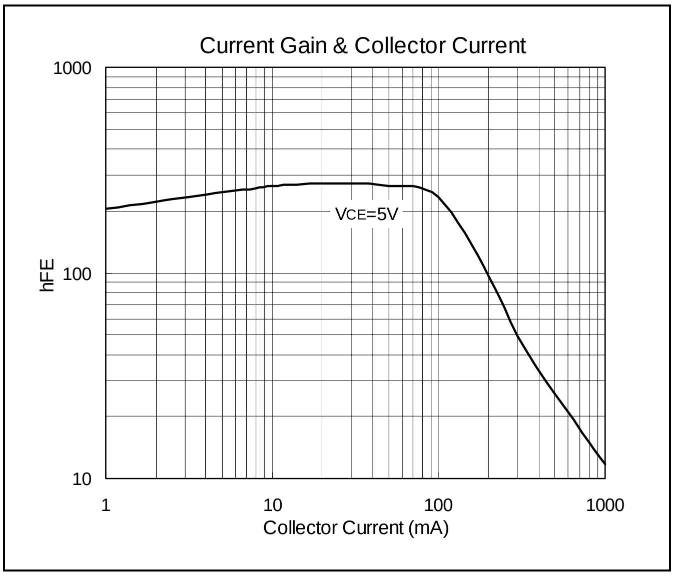
Characteristics (Ta=25°C, *Pulse Test : Pulse Width ≤380us, Duty Cycle≤2%)

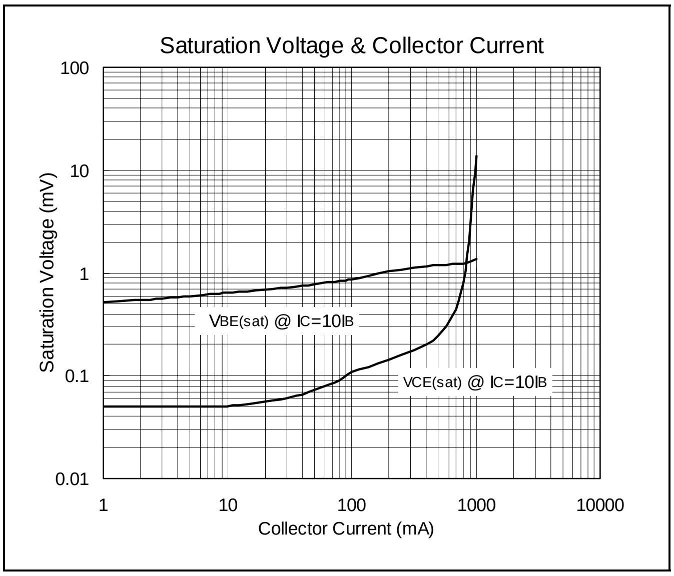
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCES	50	-	-	V	IC=100uA, VEB=0
BVCEO	45	-	-	V	IC=2mA, IB=0
BVEBO	6	-	-	V	IE=100uA, IC=0
ICES	-	-	15	nA	VCB=50V, IE=0
IEBO	-	-	100	nA	VEB=4V, IC=0
VBE(on)	550	-	700	mV	IC=2mA, VCE=5V
*VCE(sat)1	-	-	200	mV	IC=10mA, IB=0.5mA
*VCE(sat)2	-	-	600	mV	IC=100mA, IB=5mA
*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

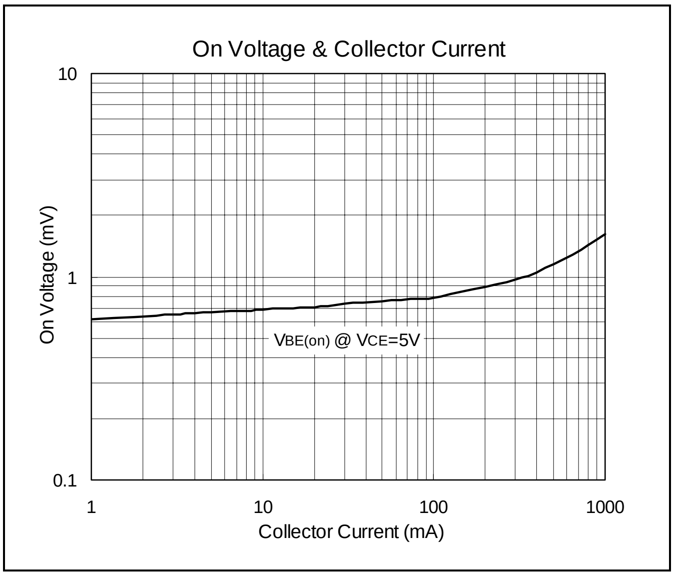
Classification of hFE2

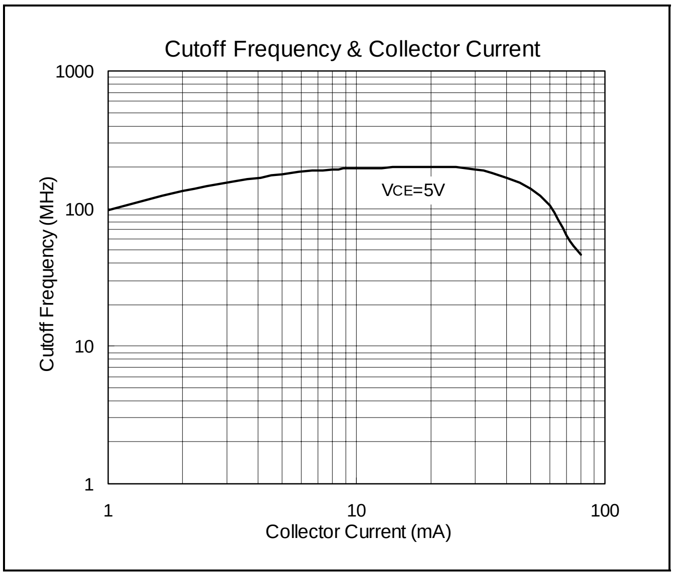
Rank	A	B	C
Range	120-220	180-460	300-800

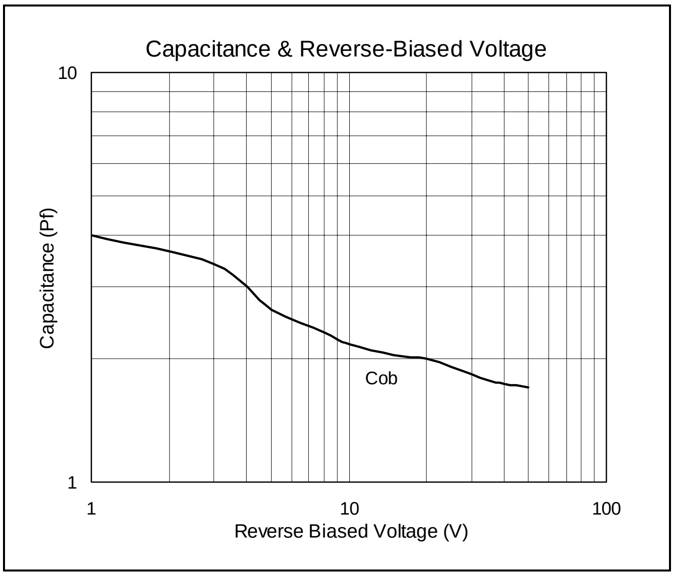
Characteristics Curve

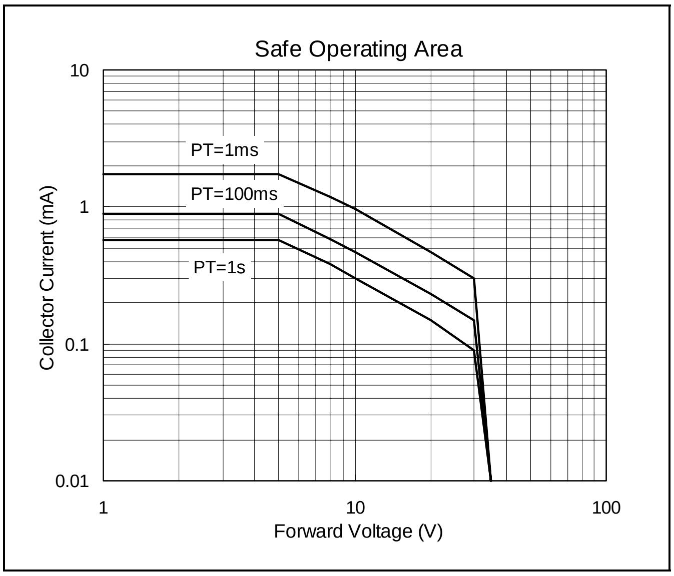


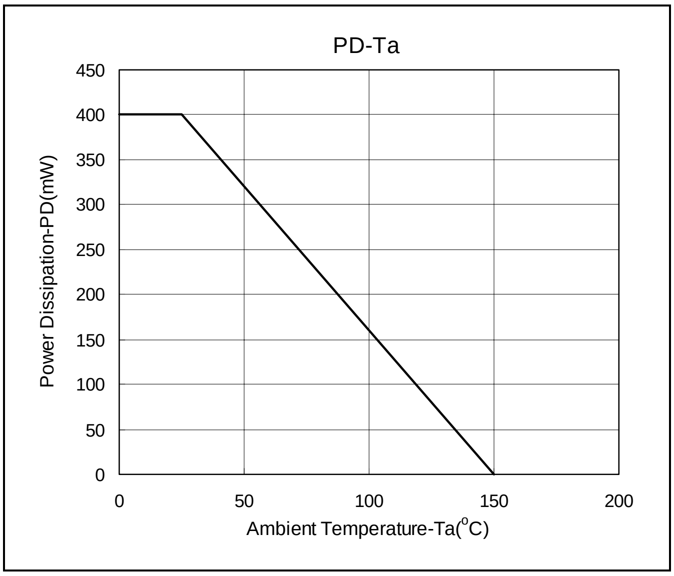




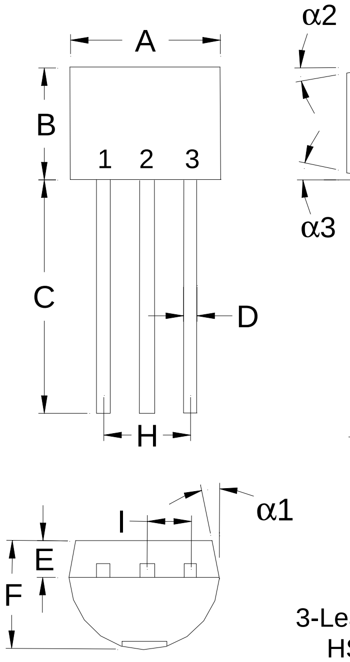






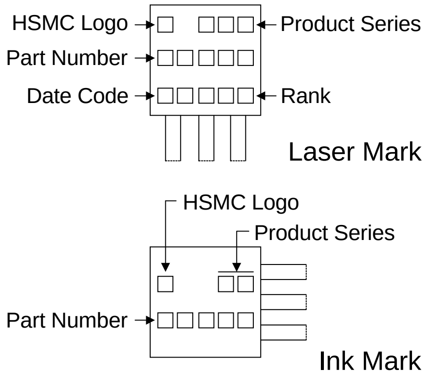

PD-Ta
Power Dissipation-PD(mW)
450
400
350
300
250
200
150
100
50
0
0
50
100
150
200
Ambient Temperature-Ta(°C)

TO-92 Dimension



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

Marking :



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

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