



HBC337

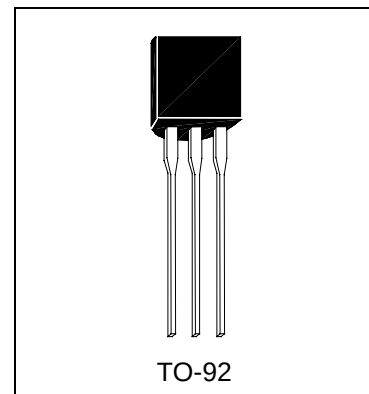
NPN EPITAXIAL PLANAR TRANSISTOR

Description

The HBC337 is designed for driver and output-stage of audio amplifiers.

Features

- High DC Current Gain: 100-600 at $I_C=100\text{mA}$, $V_{CE}=1\text{V}$
- Complementary to HBC327



TO-92

Absolute Maximum Ratings

- Maximum Temperatures
Storage Temperature -55 ~ +150 °C
Junction Temperature +150 °C Maximum
- Maximum Power Dissipation
Total Power Dissipation ($T_a=25^\circ\text{C}$) 625 mW
- Maximum Voltages and Currents ($T_a=25^\circ\text{C}$)
VCBO Collector to Base Voltage 50 V
VCEO Collector to Emitter Voltage 45 V
VEBO Emitter to Base Voltage 5 V
IC Collector Current 800 mA

Characteristics ($T_a=25^\circ\text{C}$)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	50	-	-	V	$I_C=100\mu\text{A}$, $I_E=0$
BVCEO	45	-	-	V	$I_C=10\text{mA}$, $I_B=0$
BVEBO	5	-	-	V	$I_E=10\mu\text{A}$, $I_C=0$
ICBO	-	-	100	nA	$V_{CB}=45\text{V}$, $I_E=0$
* $V_{CE}(\text{sat})$	-	-	0.7	V	$I_B=500\text{mA}$, $I_B=50\text{mA}$
$V_{BE}(\text{on})$	-	-	1.2	V	$I_C=300\text{mA}$, $V_{CE}=1\text{V}$
* h_{FE1}	100	-	600		$V_{CE}=1\text{V}$, $I_C=100\text{mA}$
* h_{FE2}	40	-	-		$V_{CE}=1\text{V}$, $I_C=300\text{mA}$
f_T	-	210	-	MHZ	$V_{CE}=5\text{V}$, $I_C=10\text{mA}$, $f=100\text{MHZ}$
Cob	-	4	-	pF	$V_{CB}=10\text{V}$, $I_E=0$, $f=1\text{MHZ}$

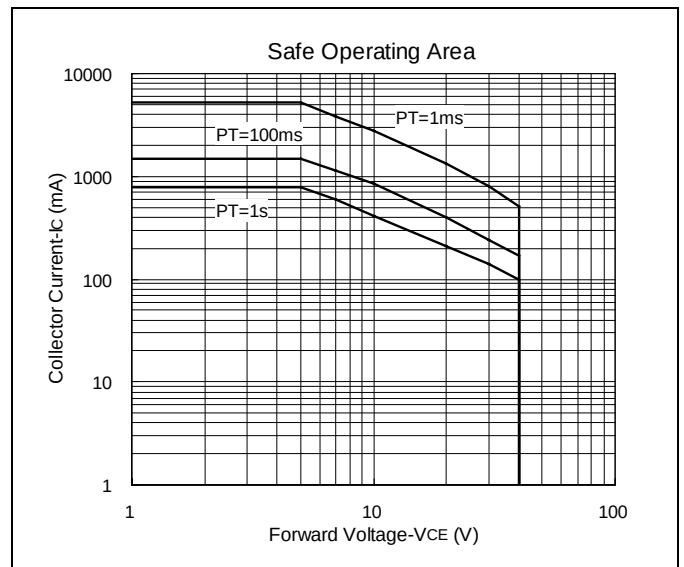
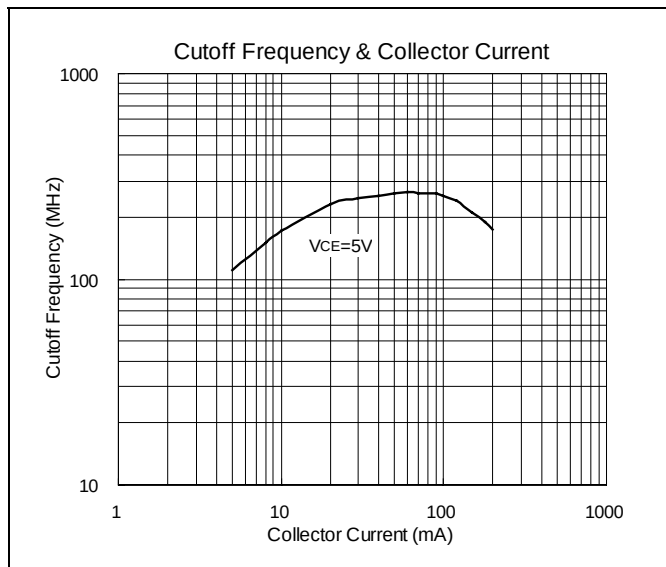
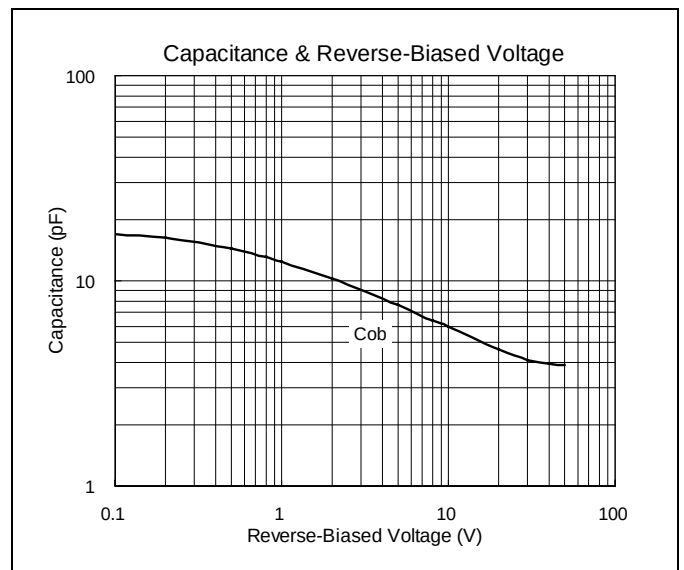
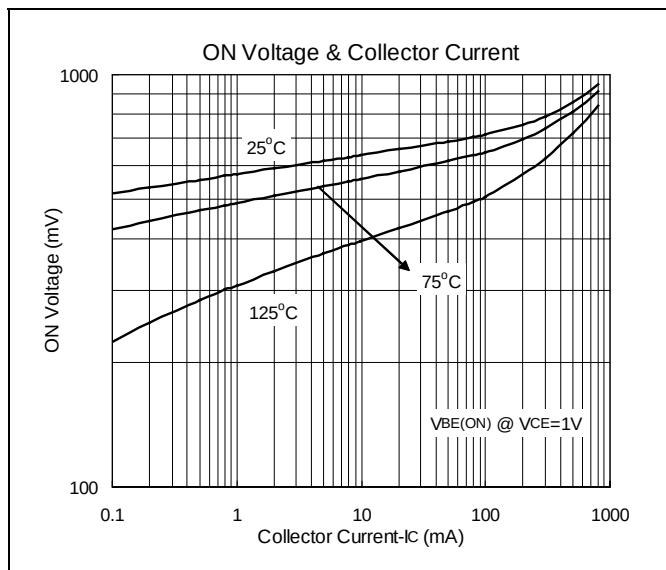
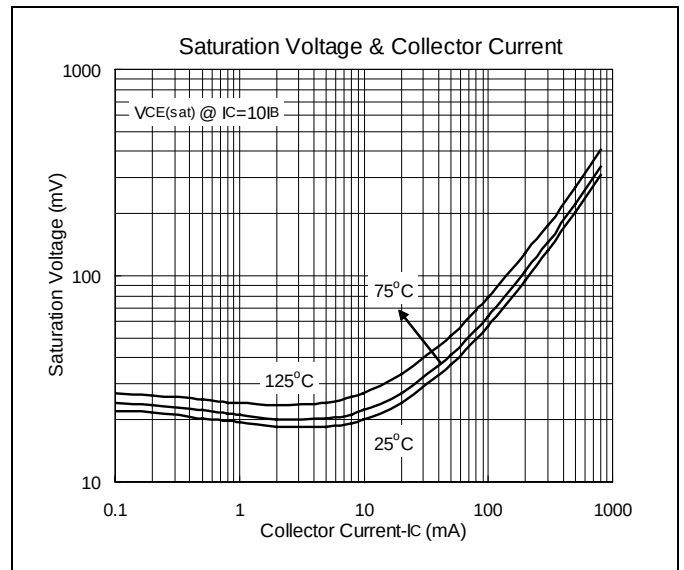
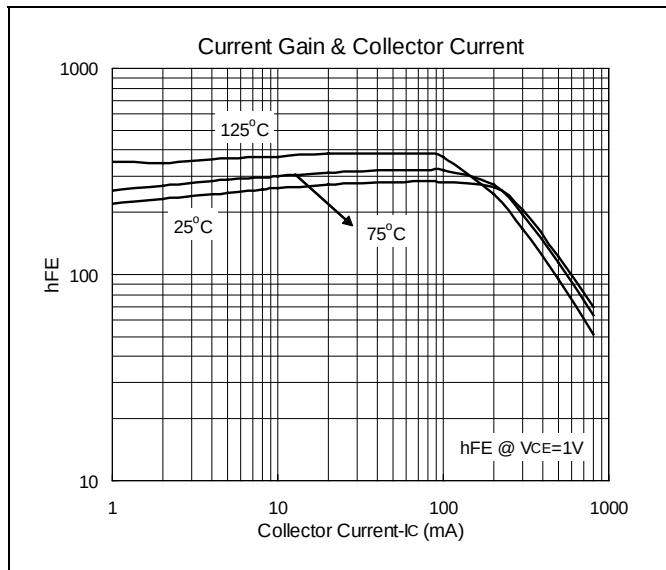
*Pulse Test: Pulse Width $\leq 380\mu\text{s}$, Duty Cycle $\leq 2\%$

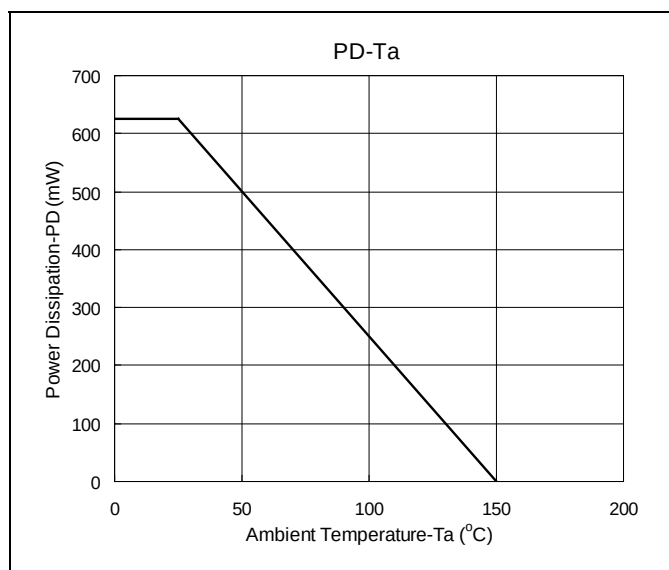
Classification of h_{FE1}

Rank	16	25	40
Range	100-250	160-400	250-600



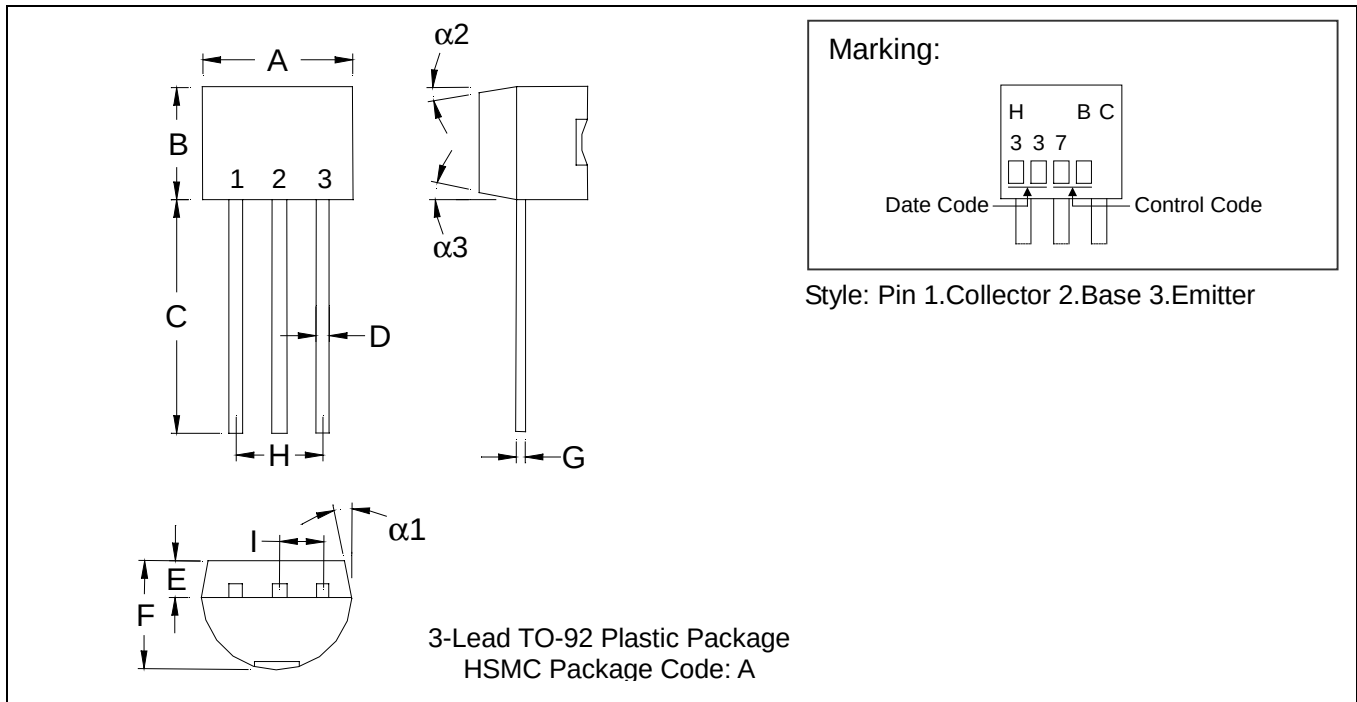
Characteristics Curve







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	$\alpha 1$	-	*5°	-	*5°
E	-	*0.0500	-	*1.27	$\alpha 2$	-	*2°	-	*2°
F	0.1323	0.1480	3.36	3.76	$\alpha 3$	-	*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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