



# HBC327

PNP EPITAXIAL PLANAR TRANSISTOR

## Description

This HBC327 is designed for driver and output-stages of audio amplifiers.

## Features

- High DC Current Gain: 100-600 at  $I_C=100\text{mA}$ ,  $V_{CE}=1\text{V}$
- Complementary to HBC337

## 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 ..... -500 mA

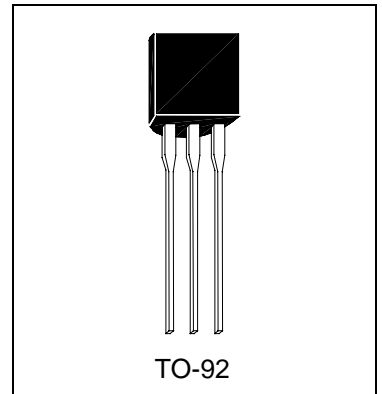
## Characteristics ( $T_a=25^\circ\text{C}$ )

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	$I_E=-100\mu\text{A}$ , $I_C=0$
ICBO	-	-	-100	nA	$V_{CB}=-30\text{V}$ , $I_E=0$
IEBO	-	-	-100	nA	$V_{EB}=-5\text{V}$ , $I_C=0$
*hFE1	100	-	600		$V_{CE}=-1\text{V}$ , $I_C=-100\text{Ma}$
*hFE2	40	-	-		$V_{CE}=-1\text{V}$ , $I_C=-300\text{mA}$
*VCE(sat)1	-	-	-0.7	V	$I_C=-500\text{mA}$ , $I_B=-50\text{mA}$
VBE(on)	-	-	-1.2	V	$V_{CE}=-1\text{V}$ , $I_C=-300\text{mA}$ ,
fT	-	100	-	MHZ	$V_{CE}=-5\text{V}$ , $I_C=-10\text{mA}$ , $f=100\text{MHZ}$
Cob	-	4	-	PF	$V_{CB}=-10\text{V}$ , $f=1\text{MHZ}$ , $I_C=0$

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

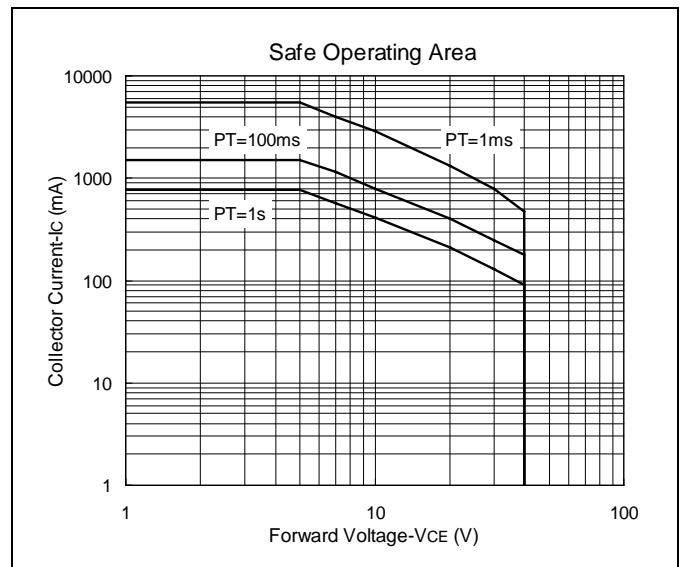
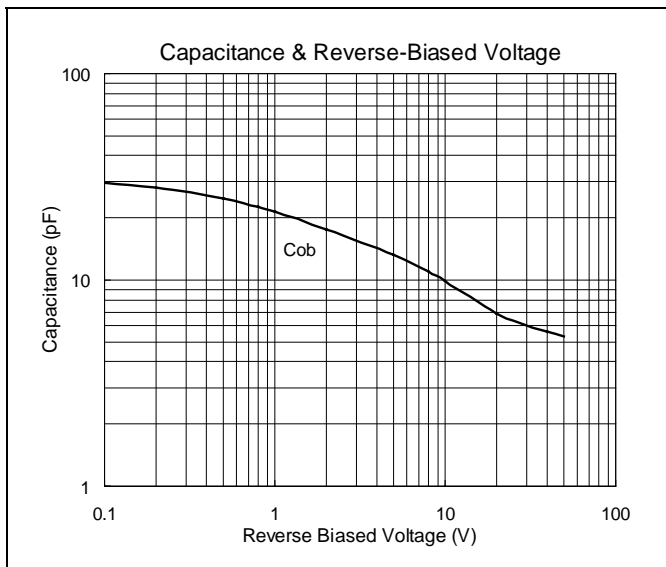
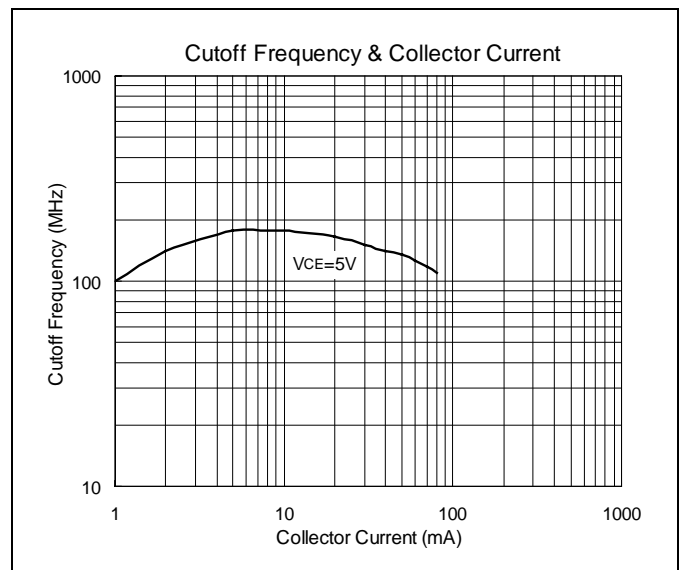
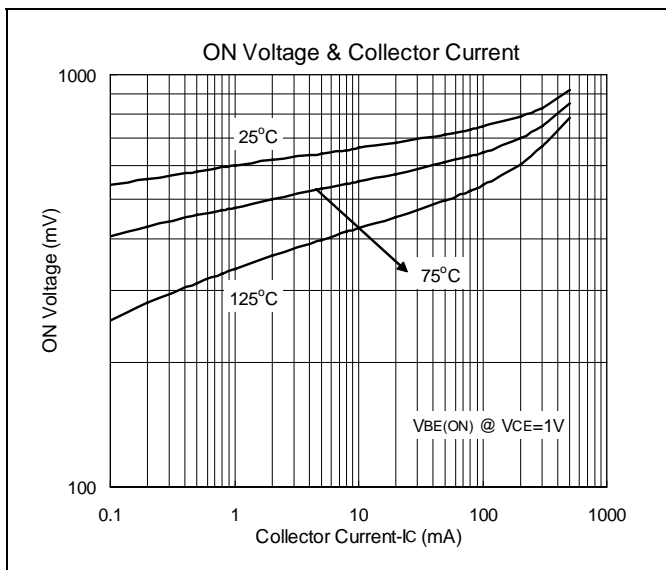
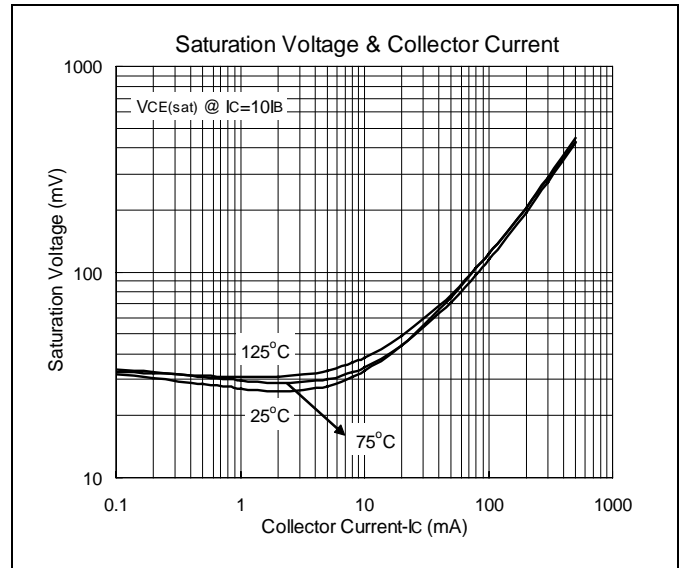
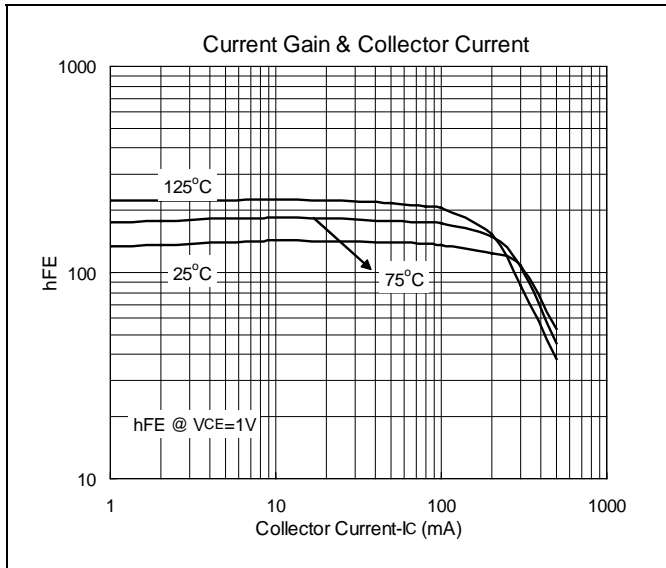
## Classification of hFE1

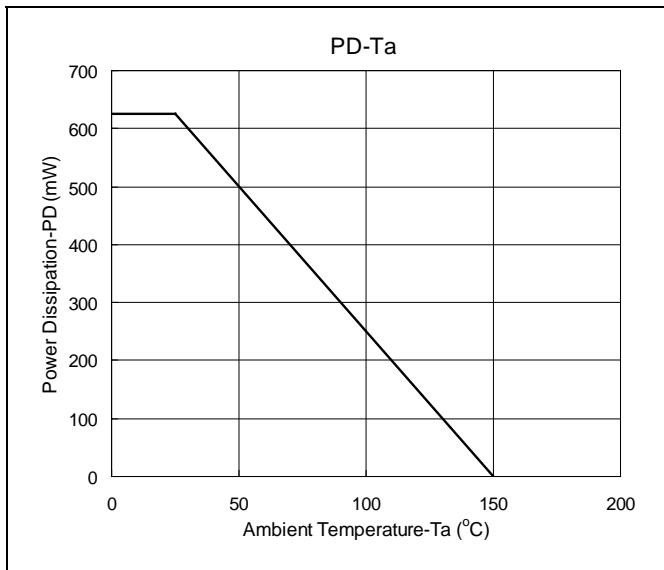
Rank	16	25	40
Range	100-250	160-400	250-600





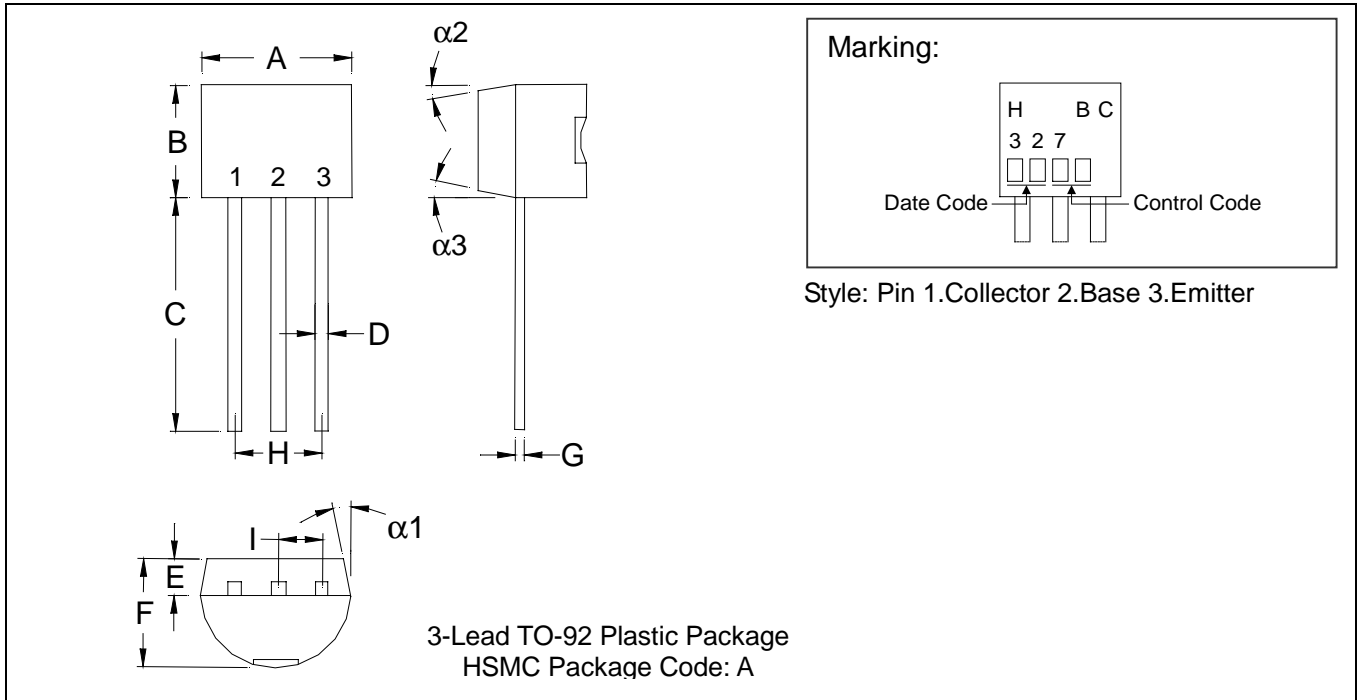
### Characteristics Curve







### 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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