



# HBC547

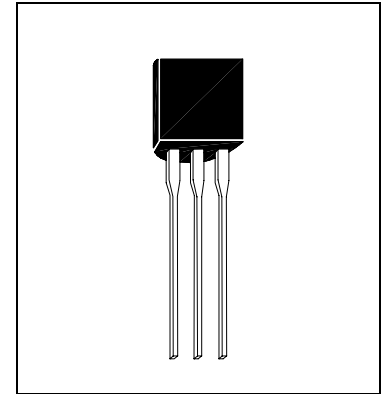
NPN EPITAXIAL PLANAR TRANSISTOR

## Description

The HBC547 is designed for use in driver stage of audio amplifier.

## Features

- High Breakdown Voltage: 45V
- High DC Current Gain: 110-800 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) ..... 625 mW
- Maximum Voltages and Currents (Ta=25°C)  
VCBO Collector to Base Voltage ..... 50 V  
VCEO Collector to Emitter Voltage ..... 45 V  
VEBO Emitter to Base Voltage ..... 6 V  
IC Collector Current ..... 100mA

## Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	50	-	-	V	IC=100uA, IE=0
BVCEO	45	-	-	V	IC=1mA, IB=0
BVEBO	6	-	-	V	IE=10uA, IC=0
ICBO	-	-	15	nA	VCB=30V, IE=0
VBE(on)1	0.58	-	0.7	V	IC=2mA, VCE=5V
VBE(on)2	-	-	0.77	V	IC=10mA, VCE=5V
*VBE(sat)1	-	0.7	-	V	IC=10mA, IB=0.5mA
*VBE(sat)2	-	0.9	-	V	IC=100mA, IB=5mA
*VCE(sat)1	-	-	0.25	V	IC=10mA, IB=0.5mA
*VCE(sat)2	-	-	0.6	V	IC=100mA, IB=5mA
*hFE	110	-	800		VCE=5V, IC=2mA
fT	-	300	-	MHZ	VCE=5V, IC=10mA, f=100MHZ
Cob	-	-	4.5	Pf	VCE=10V, IE=0, f=1MHZ

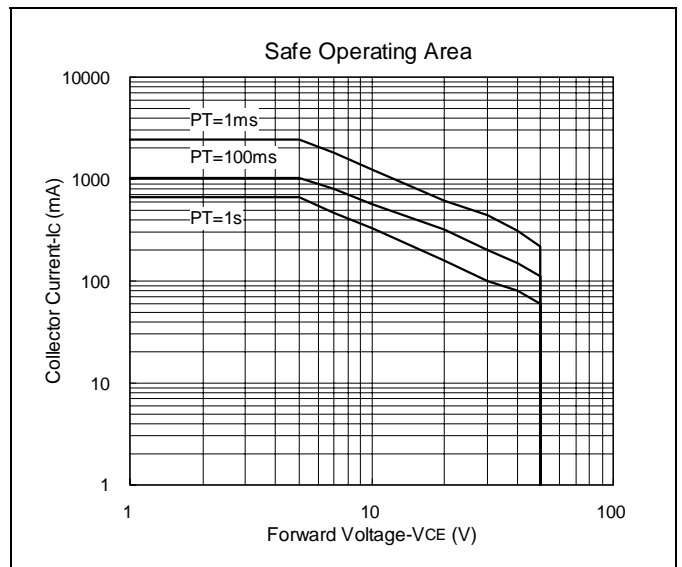
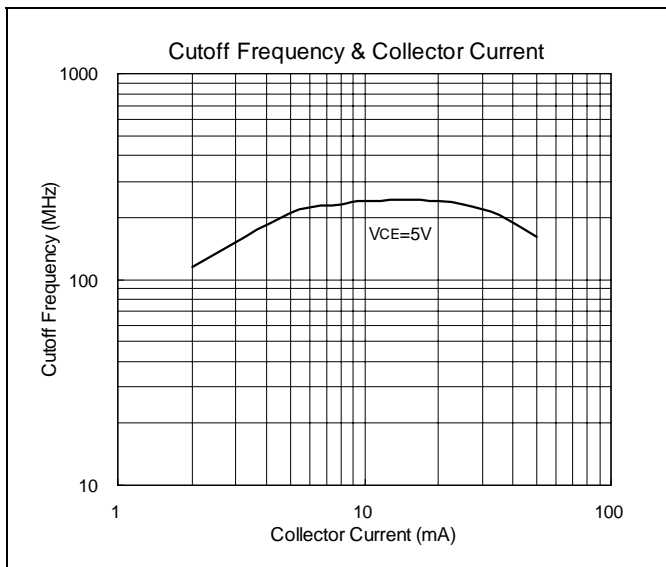
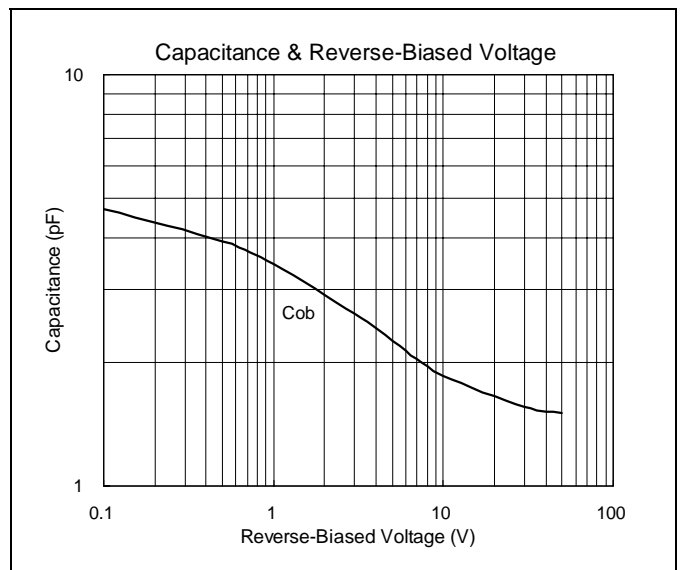
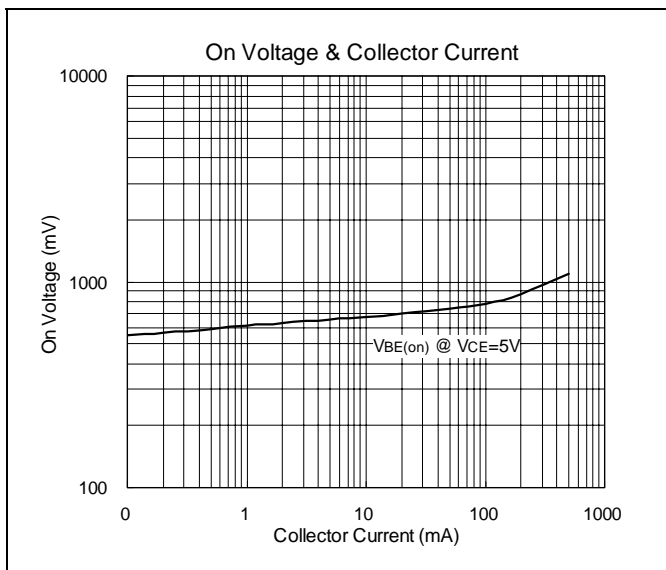
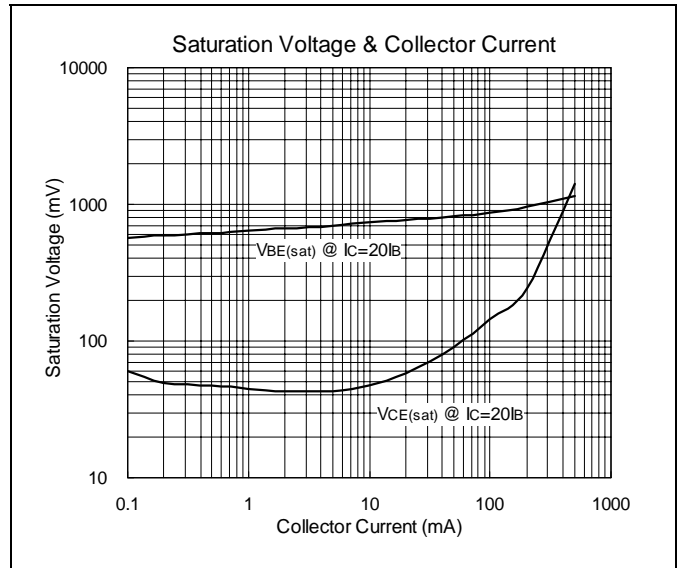
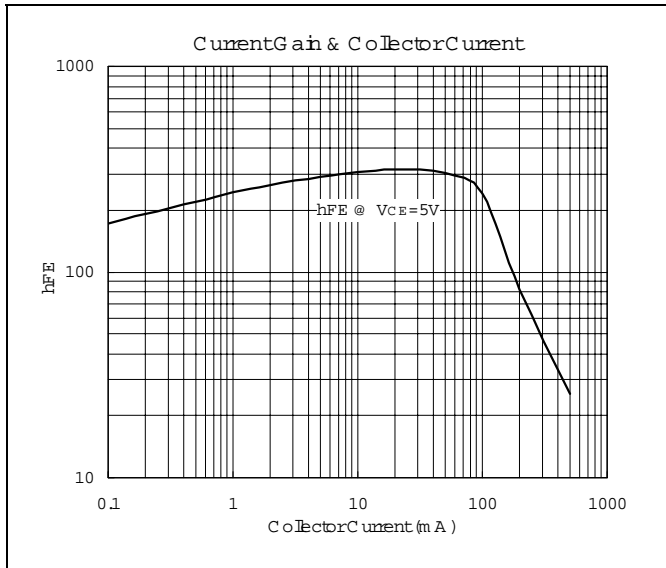
\*Pulse Test : Pulse Width ≤380us, Duty Cycle≤2%

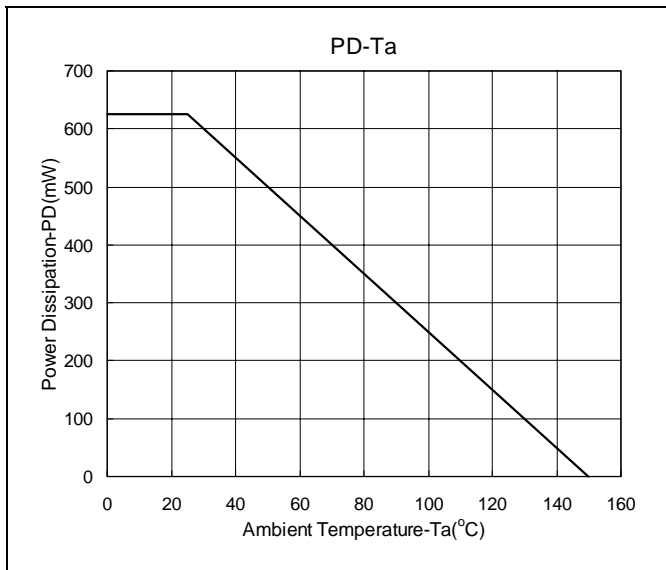
## Classification of hFE

Rank	A	B	C
Range	110-220	200-450	420-800



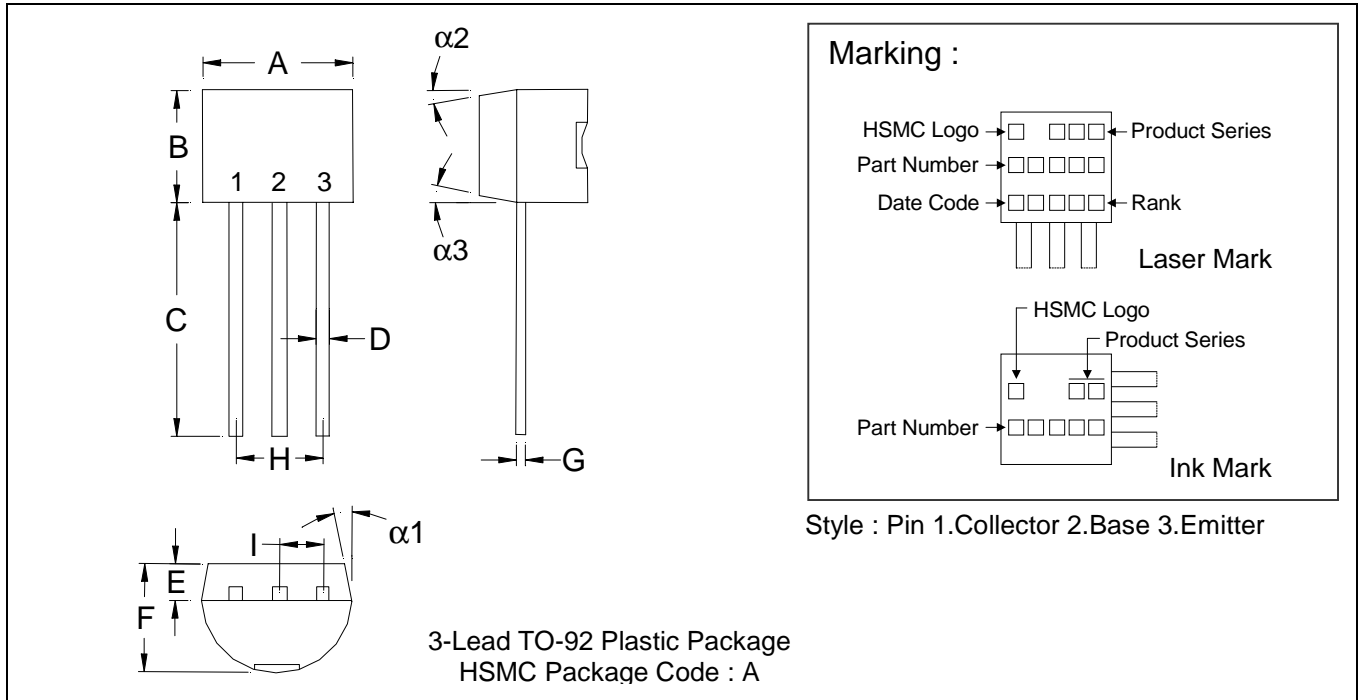
### Characteristics Curve







## 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

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