



# HMP5A94

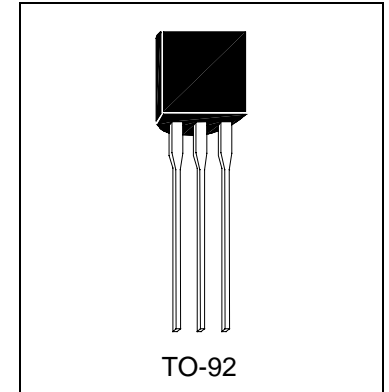
PNP EPITAXIAL PLANAR TRANSISTOR

## Description

The HMP5A94 is designed for application that requires high voltage.

## Features

- High Breakdown Voltage: 400V(Min.) at IC=1mA
- High Current: IC=300mA at 25°C
- Complementary to HMP5A44



TO-92

## 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..... -400 V  
 VCEO Collector to Emitter Voltage ..... -400 V  
 VEBO Emitter to Base Voltage..... -6 V  
 IC Collector Current ..... -500 mA

## Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	-400	-	-	V	IC=-100uA, IE=0
BVCEO	-400	-	-	V	IC=-1mA, IB=0
BVEBO	-6	-	-	V	IE=-10uA, IC=0
ICBO	-	-	-100	nA	VCB=-400V, IE=0
IEBO	-	-	-100	nA	VEB=-4V, IC=0
ICES	-	-	-500	nA	VCE=-400V, VBE=0
*VCE(sat)1	-	-	-350	mV	IC=-1mA, IB=-0.1mA
*VCE(sat)2	-	-	-500	mV	IC=-20mA, IB=-2mA
*VCE(sat)3	-	-	-750	mV	IC=-50mA, IB=-5mA
*VBE(sat)	-	-	-750	mV	IC=-10mA, IB=-1mA
*hFE1	40	-	-		VCE=-10V, IC=-1mA
*hFE2	50	-	300		VCE=-10V, IC=-10mA
*hFE3	45	-	-		VCE=-10V, IC=-50mA
*hFE4	40	-	-		VCE=-10V, IC=-100mA

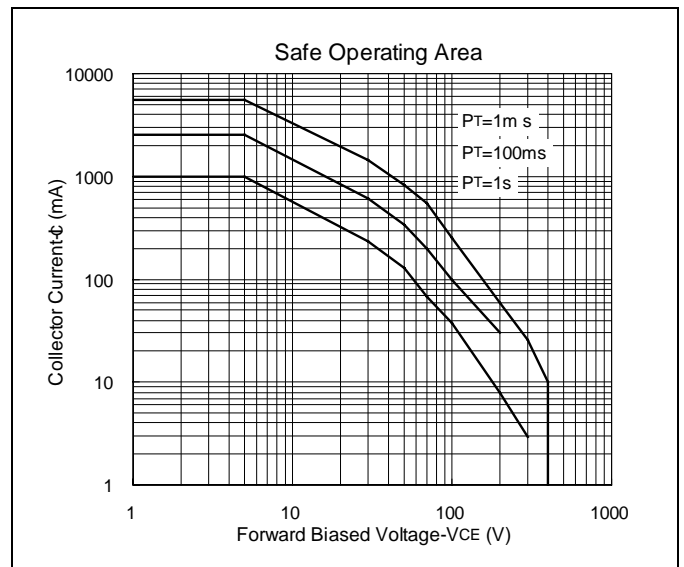
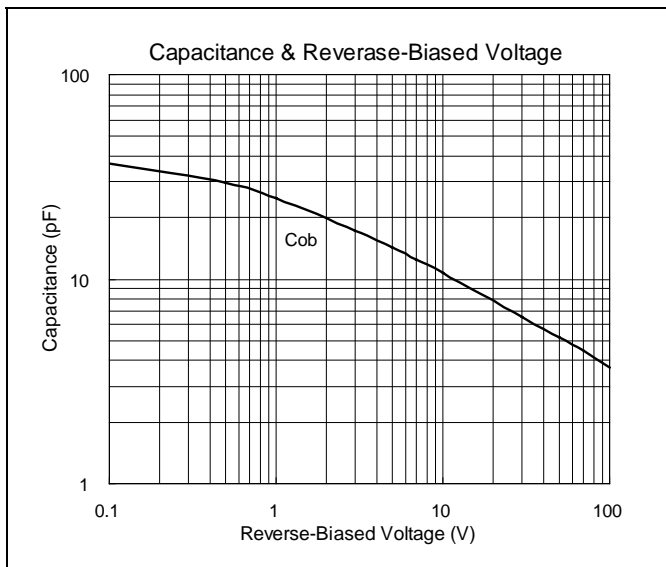
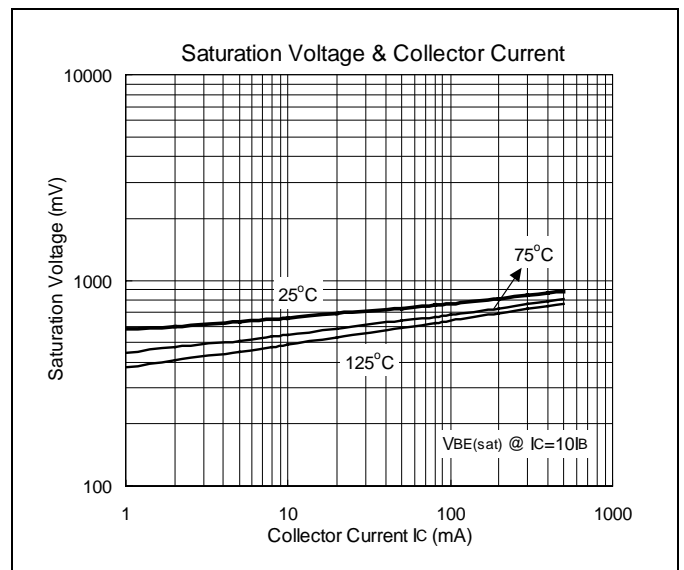
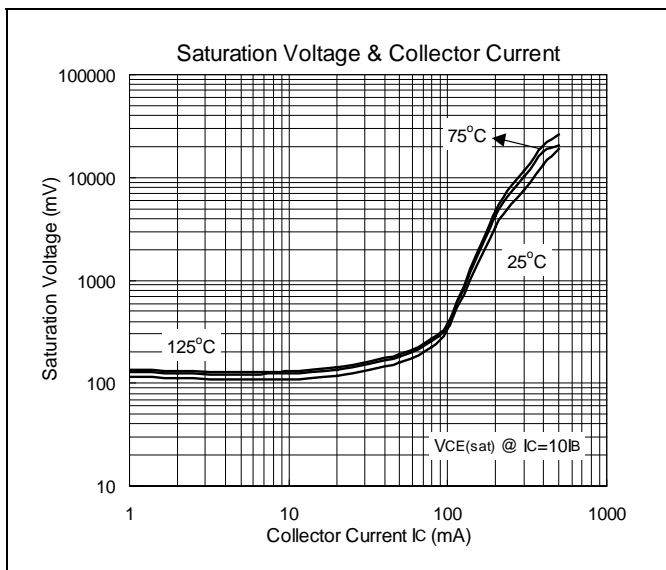
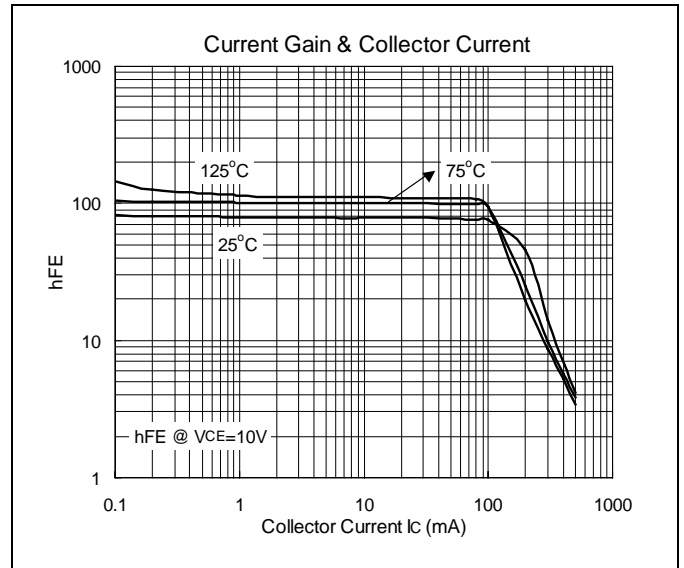
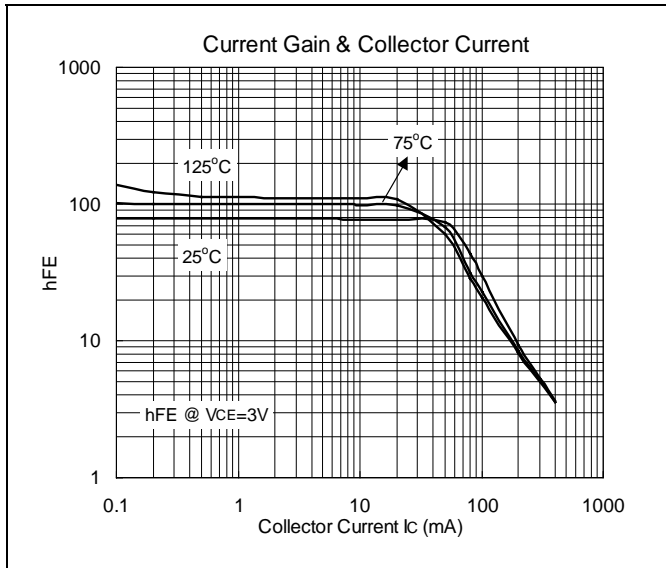
\*Pulse Test: Pulse Width ≤380us, Duty Cycles≤2%

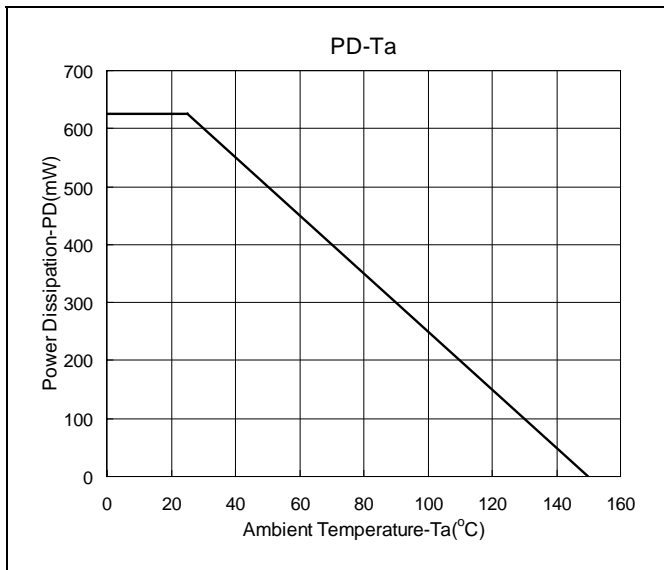
## Classification Of hFE2

Rank	NSS	NS	SD	N
hFE@VCE=-3V, IC=-100mA	>50	>50	-	-
hFE2@VCE=-10V, IC=-10mA	70-200	70-300	70-200	50-300
VCE(sat)@IC=-20mA, IB=-2mA	<200mV	<500mV	<200mV	<500mV



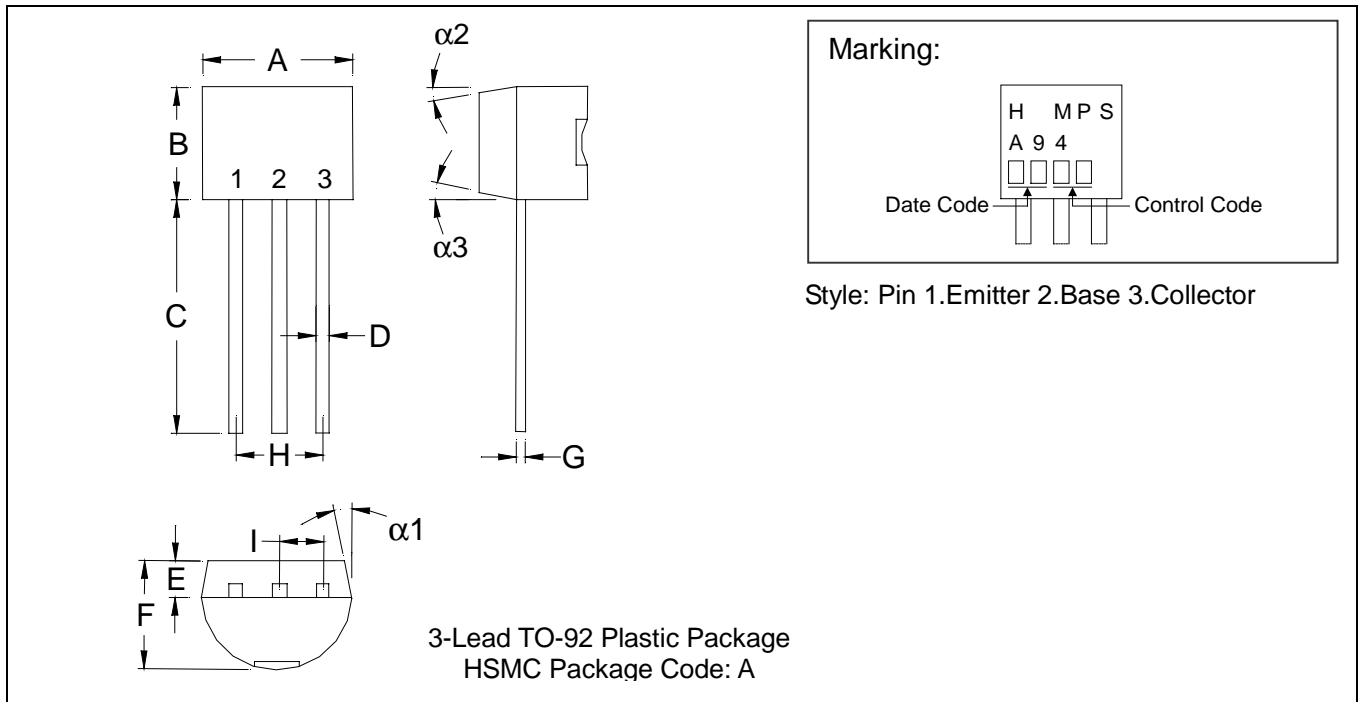
### Characteristics Curve







### 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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