

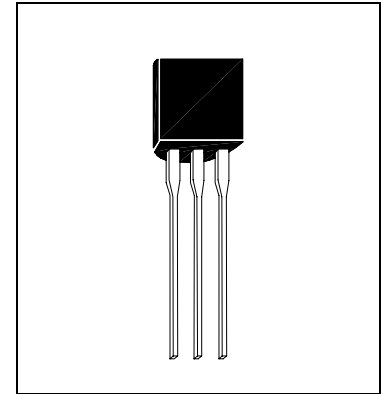


# HSC1815

NPN EPITAXIAL PLANAR TRANSISTOR

## Description

The HSC1815 is designed for use in driver stage of AF amplifier general purpose amplification.



## 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)  
 VCBO Collector to Base Voltage ..... 60 V  
 VCEO Collector to Emitter Voltage ..... 50 V  
 VEBO Emitter to Base Voltage ..... 5 V  
 IC Collector Current ..... 150 mA  
 IB Base Current ..... 50 mA

## Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	60	-	-	V	IC=100uA, IE=0
BVCEO	50	-	-	V	IC=1mA, IB=0
BVEBO	5	-	-	V	IE=10uA, IC=0
ICBO	-	-	100	nA	VCB=60V, IE=0
IEBO	-	-	100	nA	VEB=5V, IC=0
*VCE(sat)	-	-	250	mV	IC=100mA, IB=10mA
*VBE(sat)	-	-	1	V	IC=100mA, IB=10mA
*hFE1	120	-	700		VCE=6V, IC=2mA
*hFE2	25	-	-		VCE=6V, IC=150mA
fT	80	-	-	MHz	VCE=10V, IC=1mA, f=100MHz
Cob	-	-	3.5	pF	VCB=10V, f=1MHz, IE=0

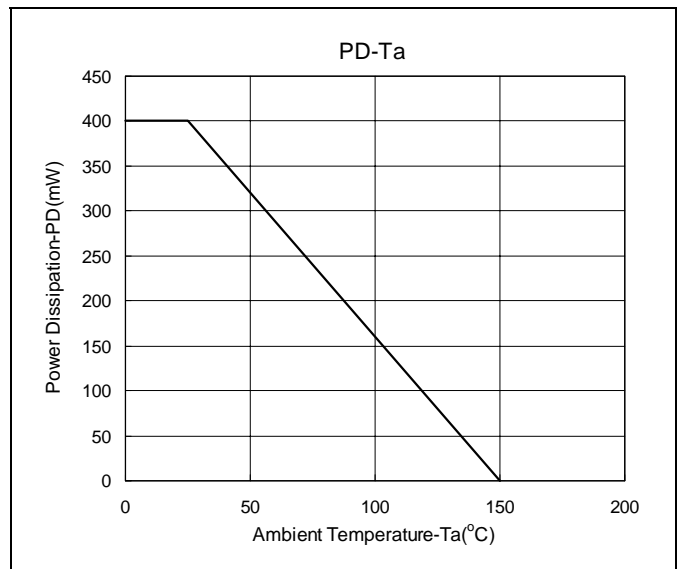
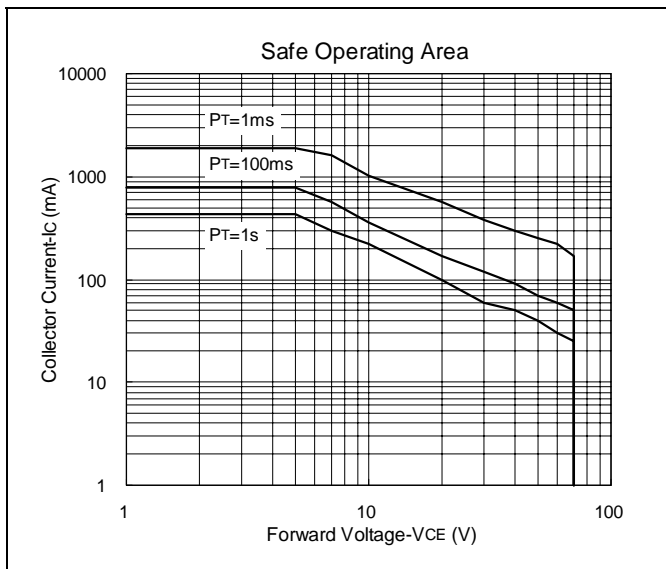
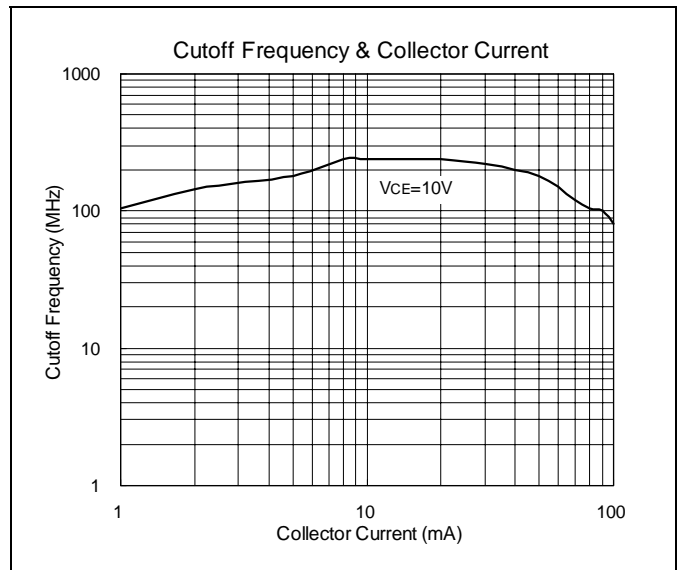
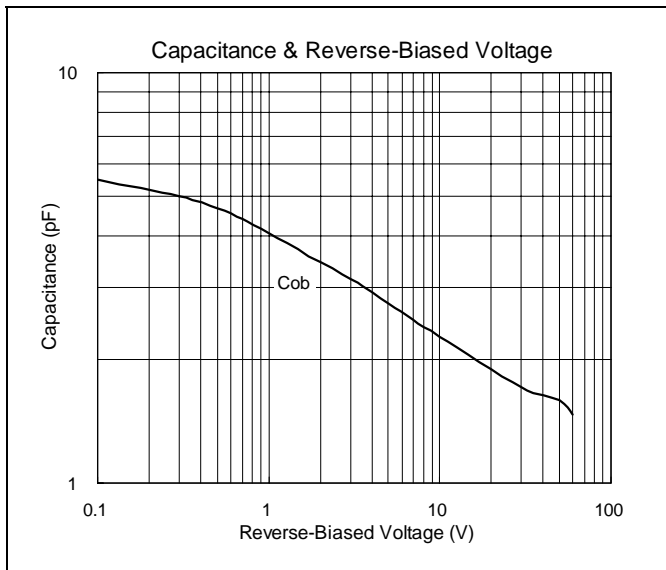
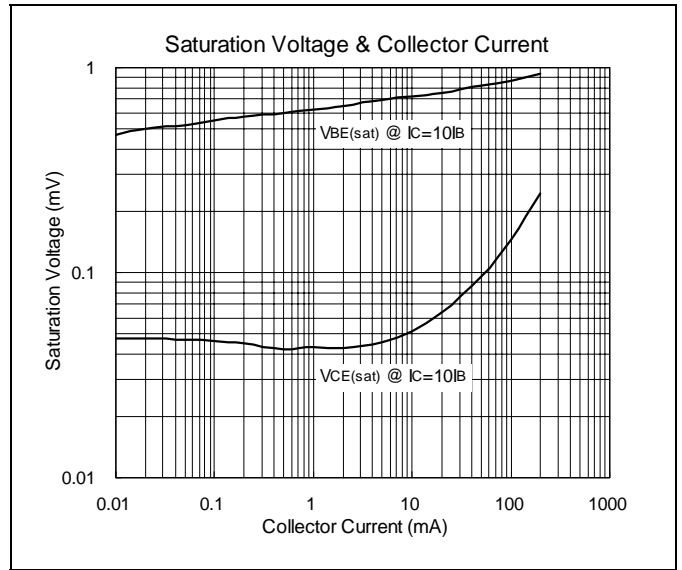
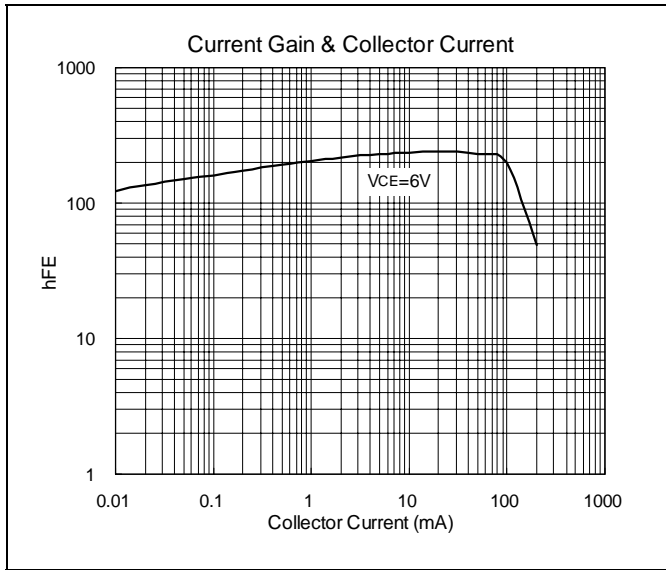
\*Pulse Test : Pulse Width ≤380us, Duty Cycle≤2%

## Classification of hFE1

Rank	Y	GR	BL
Range	120-240	200-400	350-700

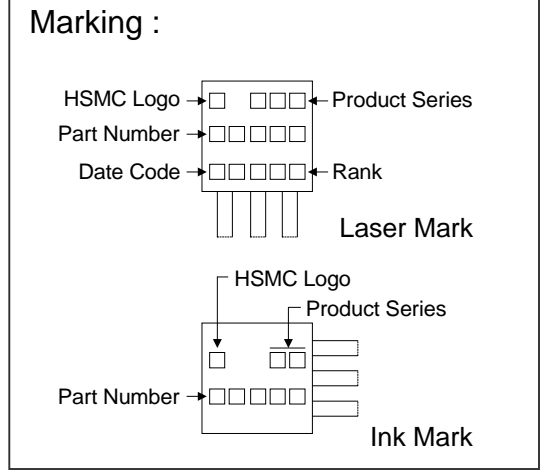
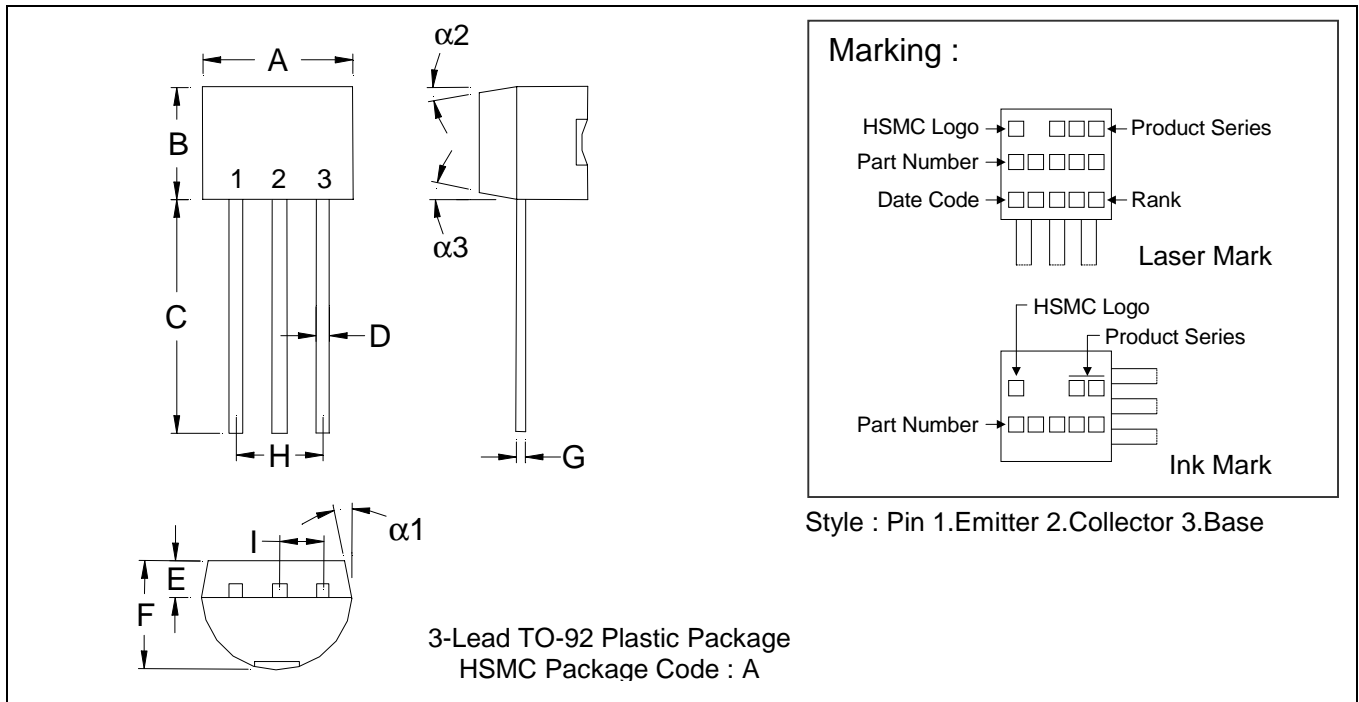


### Characteristics Curve





## TO-92 Dimension



Style : Pin 1. Emitter 2. Collector 3. Base

\*: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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