

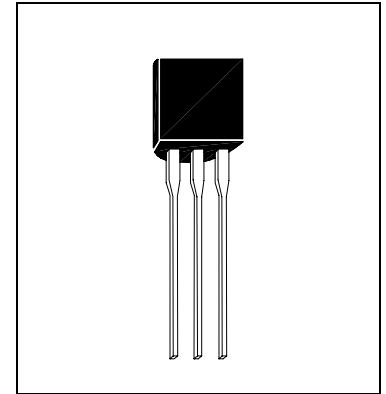


# HSA1015

PNP EPITAXIAL PLANAR TRANSISTOR

## Description

The HSA1015 is designed for use in driver stage of AF amplifier and 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 ..... -50 V  
 VCEO Collector to Emitter Voltage ..... -50 V  
 VEBO Emitter to Base Voltage ..... -5 V  
 IC Collector Current ..... -150 mA

## Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	-50	-	-	V	IC=-100uA, IE=0
BVCEO	-50	-	-	V	IC=-1mA, IB=0
BVEBO	-5	-	-	V	IE=-10uA, IC=0
ICBO	-	-	-100	nA	VCB=-50V, IE=0
IEBO	-	-	-100	nA	VEB=-5V, IC=0
*VCE(sat)	-	-	-300	mV	IC=-100mA, IB=-10mA
*VBE(sat)	-	-	-1.1	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	-	-	7	pF	VCB=-10V, f=1MHz, IE=0

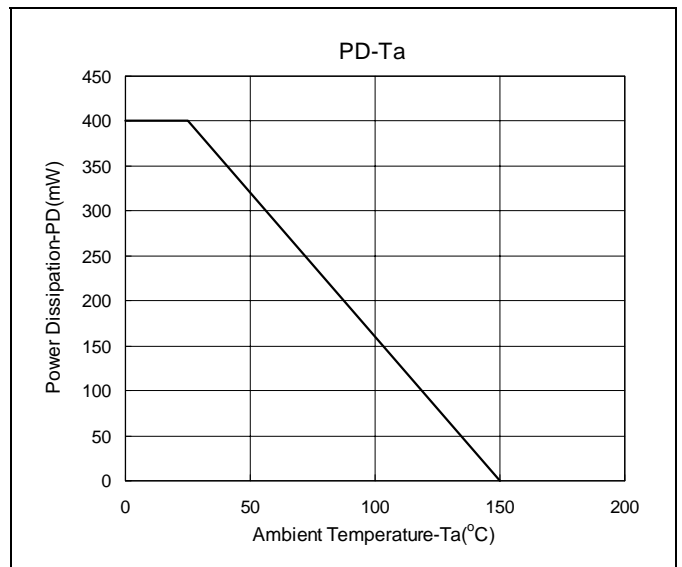
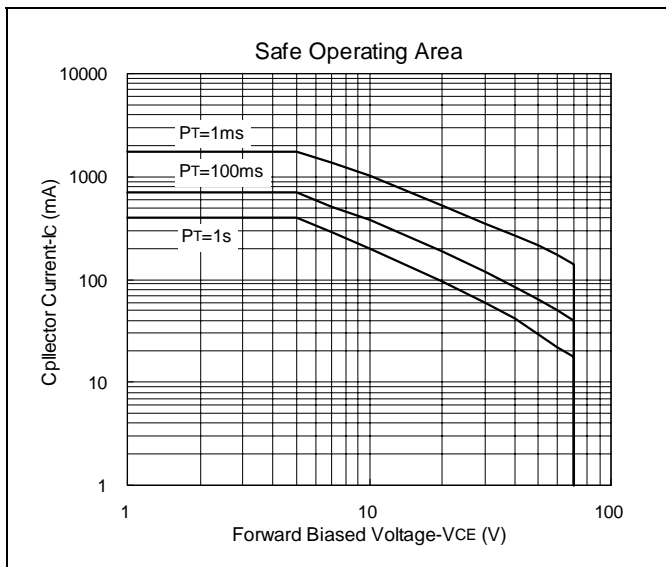
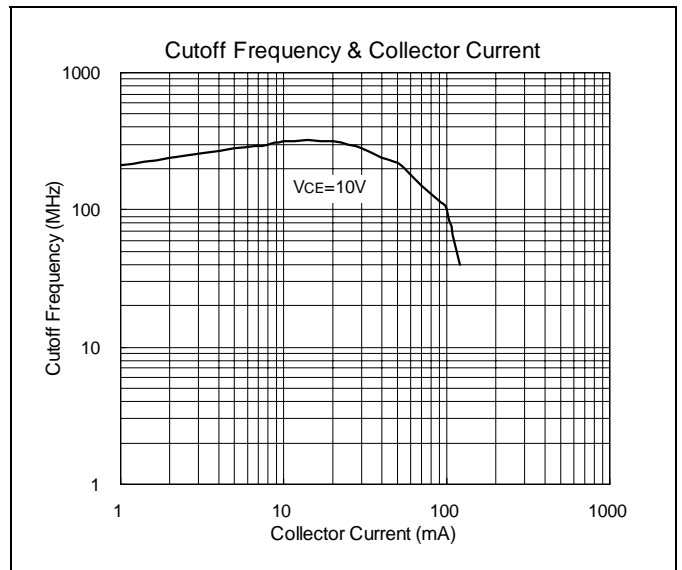
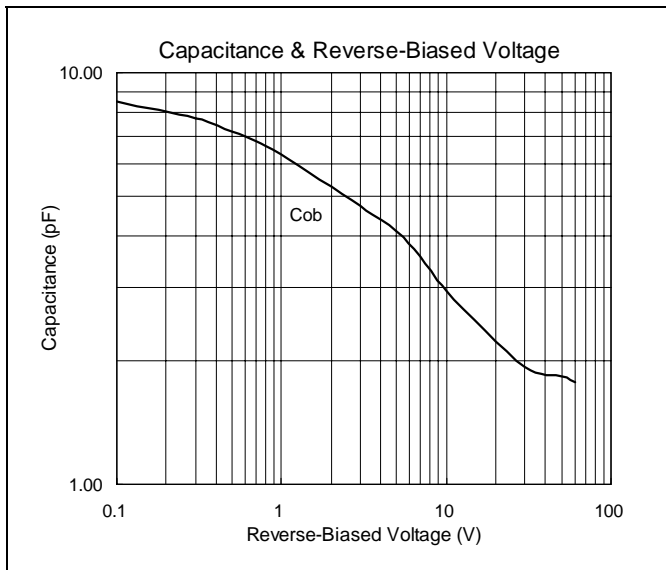
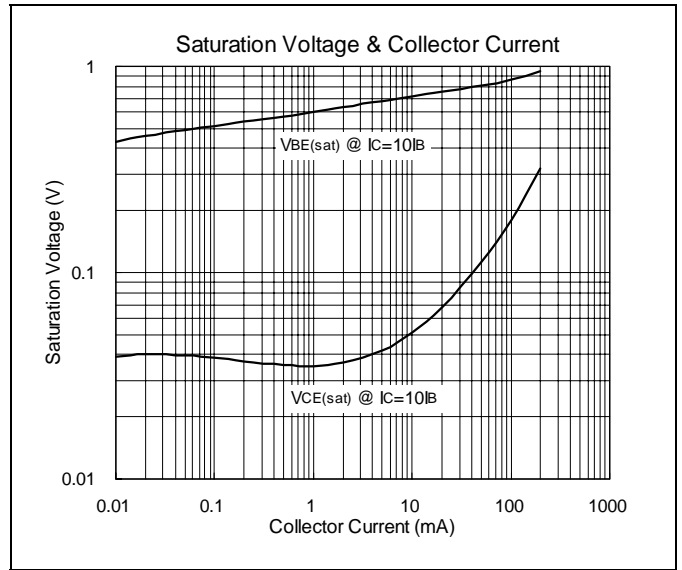
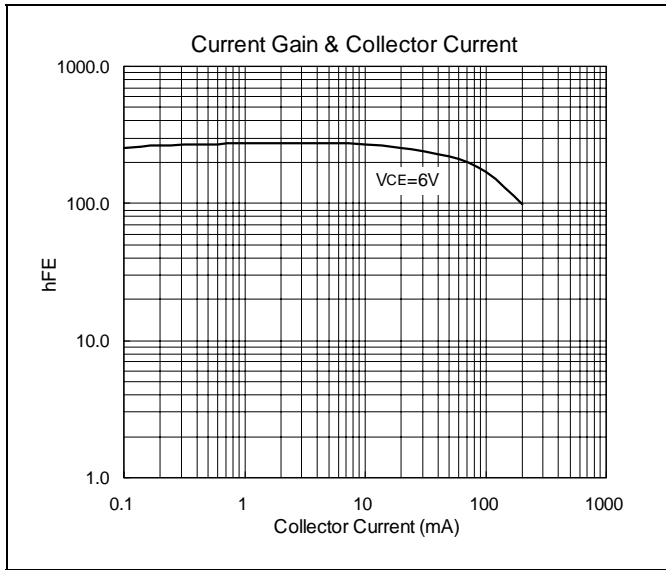
\*Pulse Test : Pulse Width ≤380us, Duty Cycle≤2%

## Classification Of hFE1

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



### Characteristics Curve





### TO-92 Dimension

**3-Lead TO-92 Plastic Package**  
HSMC Package Code : A

**Marking :**

HSMC Logo → □ □ □ □ ← Product Series  
 Part Number → □ □ □ □ □ □  
 Date Code → □ □ □ □ □ □ ← Rank  
 Laser Mark

HSMC Logo  
 Product Series  
 Part Number → □ □ □ □ □ □  
 Ink Mark

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	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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