

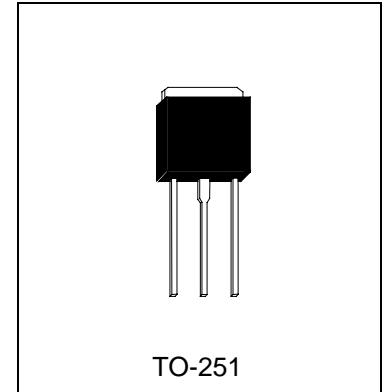


# HI649A

PNP EPITAXIAL PLANAR TRANSISTOR

## Description

The HI649A is designed for low frequency power amplifier.



## Absolute Maximum Ratings (Ta=25°C)

- Maximum Temperatures
  - Storage Temperature ..... -55 ~ +150 °C
  - Junction Temperature ..... +150 °C
- Maximum Power Dissipation
  - Total Power Dissipation (Tc=25°C) ..... 20 W
- Maximum Voltages and Currents
  - BVCBO Collector to Base Voltage ..... -180 V
  - BVCEO Collector to Emitter Voltage ..... -160 V
  - BVEBO Emitter to Base Voltage ..... -5 V
  - IC Collector Current ..... -1.5 A

## Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	-180	-	-	V	IC=-1mA
BVCEO	-160	-	-	V	IC=-10mA
BVEBO	-5	-	-	V	IE=-1mA
ICBO	-	-	-10	uA	VCB=-160V
*VCE(sat)	-	-	-1	V	IC=-500mA, IB=-50mA
VBE(on)	-	-	-1.5	V	VCE=-5V, IC=-150mA
*hFE1	60	-	200		VCE=-5V, IC=-150mA
*hFE2	30	-	-		VCE=-5V, IC=-500mA
fT	-	140	-	MHz	VCE=-5V, IC=-150mA
Cob	-	27	-	pF	VCB=-10V, f=1MHz, IE=0

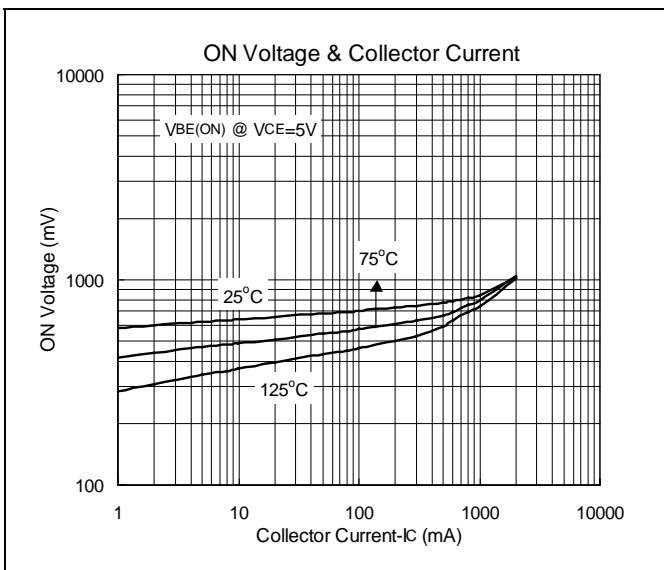
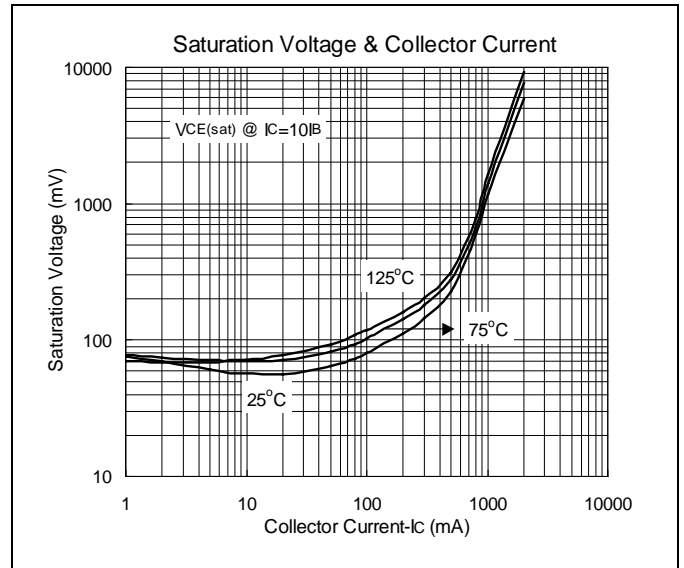
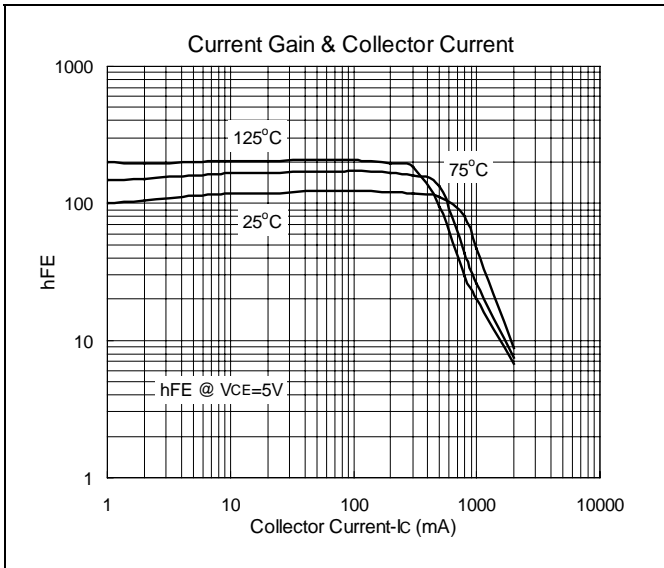
\*Pulse Test: Pulse Width ≤380us, Duty Cycle≤2%

## Classification Of hFE1

Rank	B	C
Range	60-120	100-200

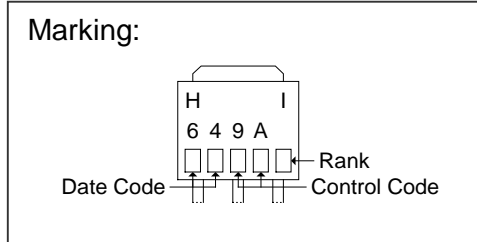
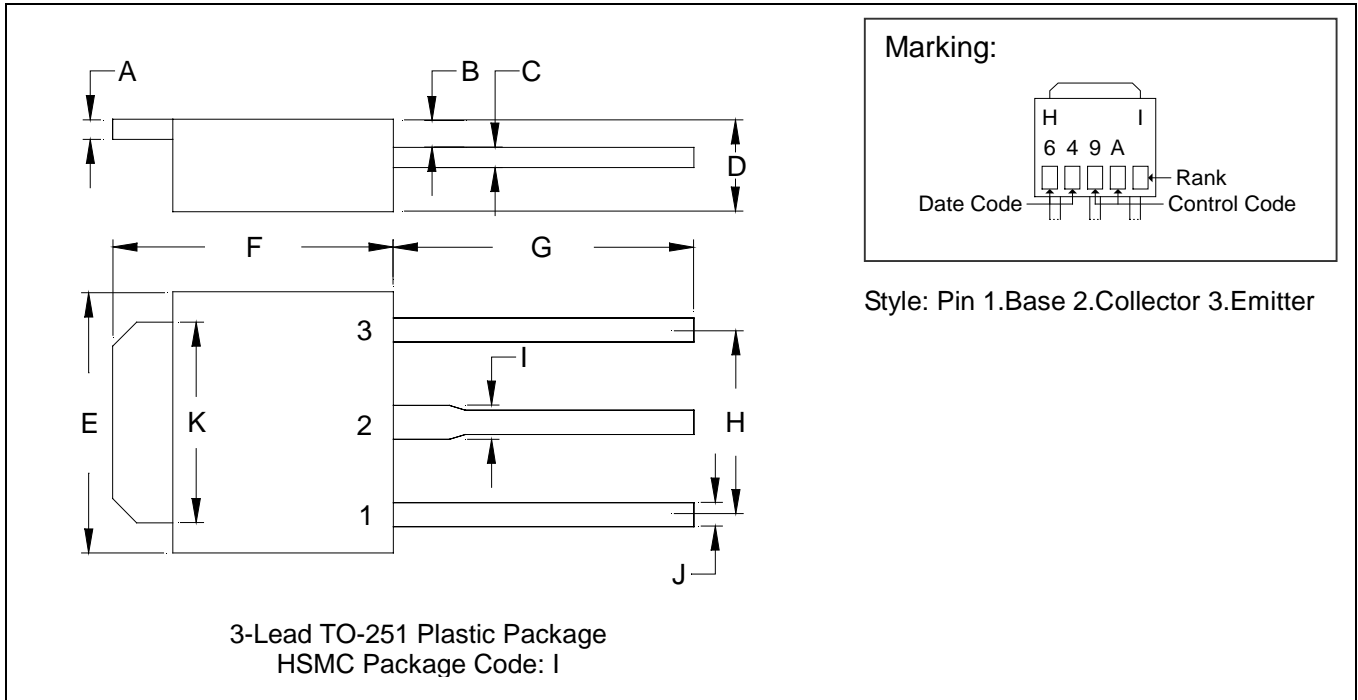


### Characteristics Curve





### TO-251 Dimension



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

\*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.0177	0.0217	0.45	0.55	G	0.2559	-	6.50	-
B	0.0354	0.0591	0.90	1.50	H	-	*0.1811	-	*4.60
C	0.0177	0.0236	0.45	0.60	I	-	0.0354	-	0.90
D	0.0866	0.0945	2.20	2.40	J	-	0.0315	-	0.80
E	0.2520	0.2677	6.40	6.80	K	0.2047	0.2165	5.20	5.50
F	0.2677	0.2835	6.80	7.20					

- Notes: 1.Dimension and tolerance based on our Spec. dated May. 24,1995.  
 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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