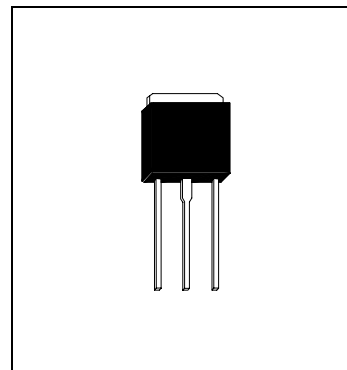




# HI1109

PNP EPITAXIAL PLANAR TRANSISTOR



## Description

- Low frequency high voltage amplifier
- Complementary pair with HI1609

## Absolute Maximum Ratings (Ta=25°C)

- Maximum Temperatures
  - Storage Temperature ..... -55~+150 °C
  - Junction Temperature ..... +150 °C
- Maximum Power Dissipation
  - Total Power Dissipation (Ta=25°C) ..... 1.25 W
- Maximum Voltages and Currents
  - BVCBO Collector to Base Voltage ..... -160 V
  - BVCEO Collector to Emitter Voltage ..... -160 V
  - BVEBO Emitter to Base Voltage ..... -5 V
  - IC Collector Current ..... -100 mA

## Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	-160	-	-	V	IC=-10uA, IE=0
BVCEO	-160	-	-	V	IC=-1mA, IB=0
BVEBO	-5	-	-	V	IE=-10uA, IC=0
ICBO	-	-	-10	uA	VCB=-140V, IE=0
*VCE(sat)	-	-	-2	V	IC=-30mA, IB=-3mA
VBE	-	-	-1.5	V	VCE=-5V, IC=-10mA
*hFE1	60	-	320		VCE=-5V, IC=-10mA
*hFE2	30	-	-		VCE=-5V, IC=-1mA
fT	-	140	-	MHz	VCE=-5V, IC=-10mA
Cob	-	5.5	-	pF	VCB=-10V, f=-1MHz

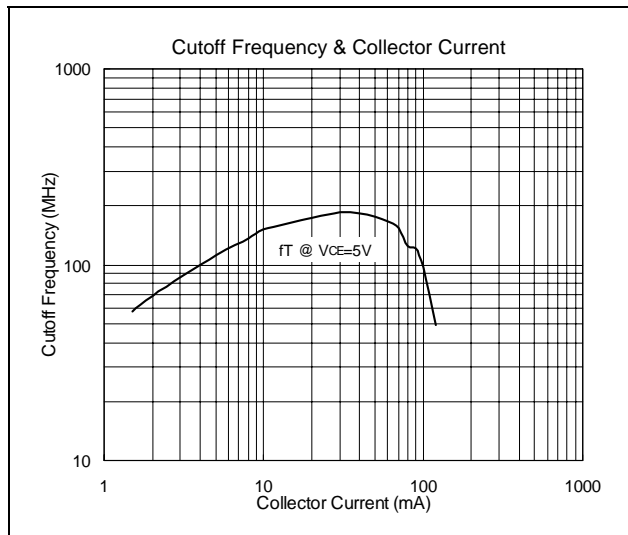
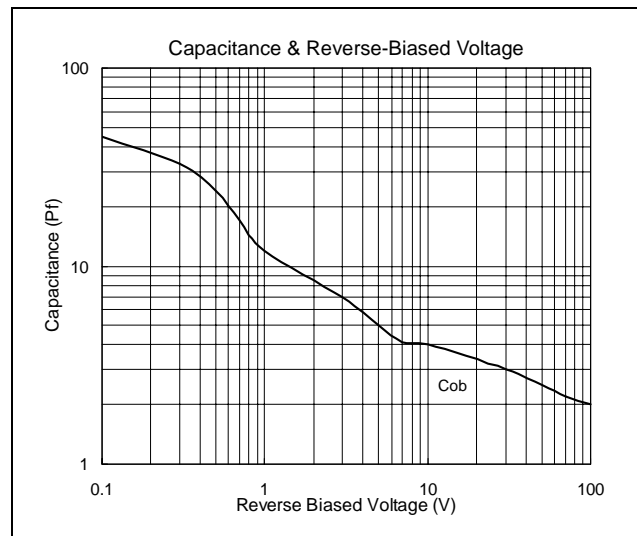
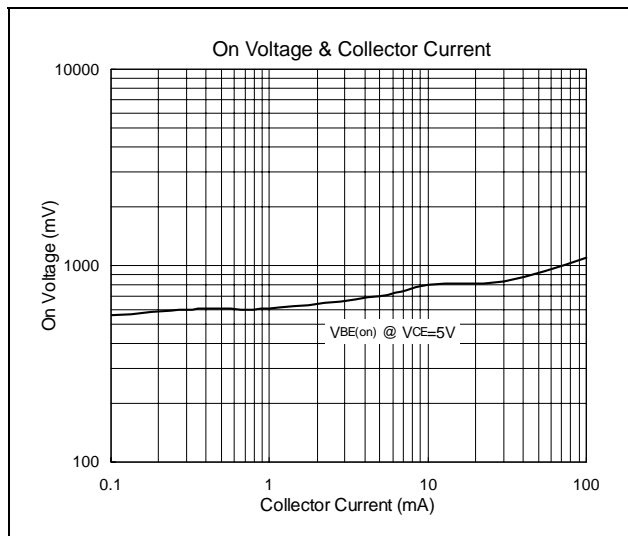
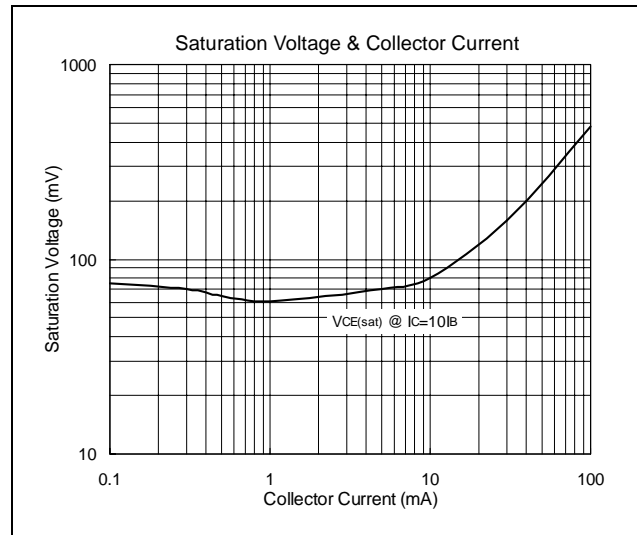
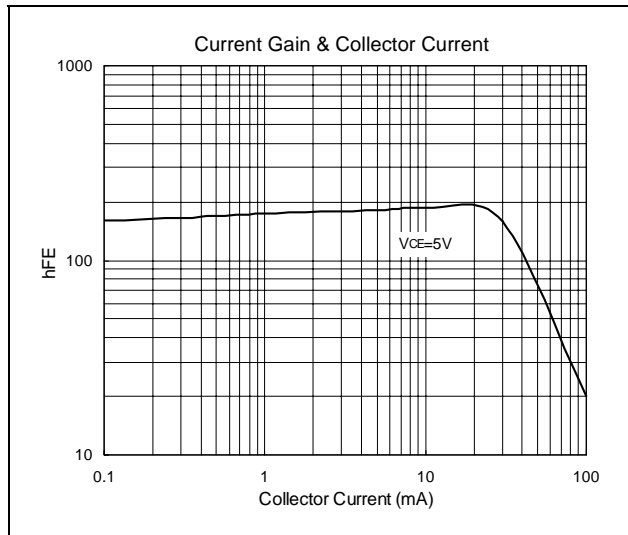
\*Pulse Test : Pulse Width ≤380us, Duty Cycle≤2%

## Classification Of hFE1

Rank	B	C	D
Range	60-120	100-200	160-320

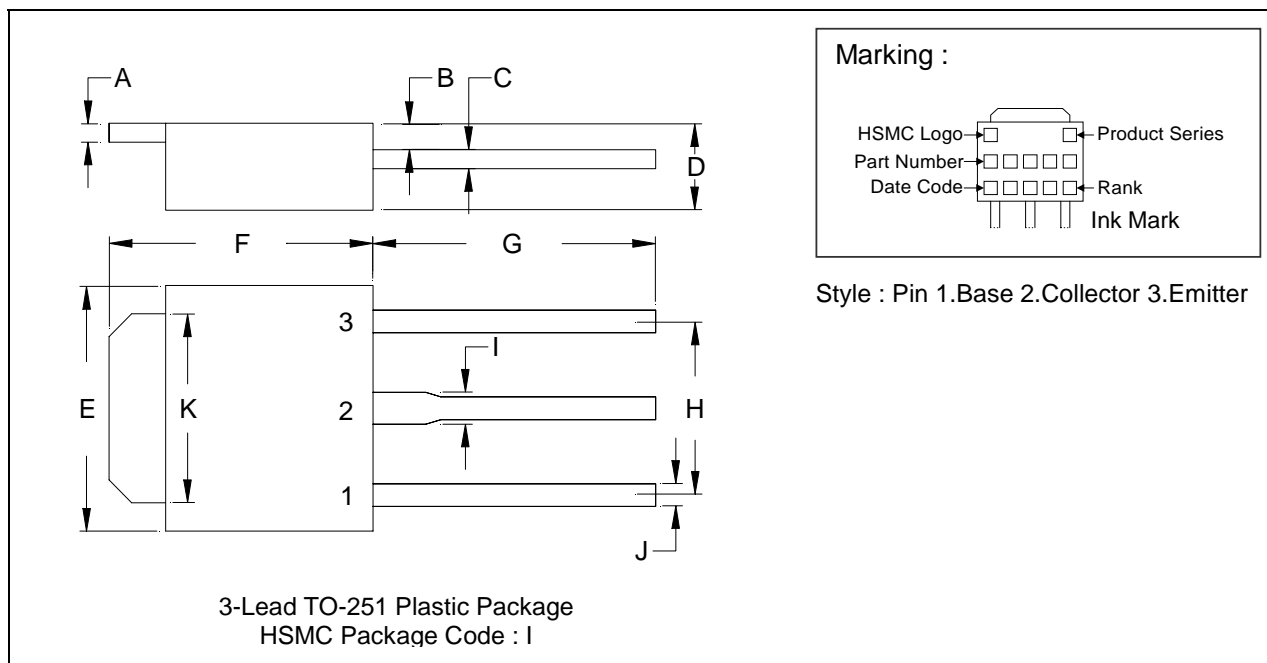


### Characteristics Curve





### TO-251 Dimension



\*: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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