



# HI1538

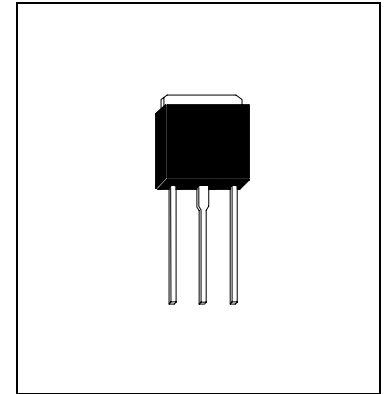
PNP EPITAXIAL PLANAR TRANSISTOR

## Description

High-definition CRT display video output, wide-band amp.

## Features

- High  $f_T$ :  $f_T=400\text{MHz}$
- High breakdown voltage:  $V_{CEO}=120\text{Vmin}$
- Small reverse transfer capacitance and excellent HF response



## 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)..... 1.3 W
  - Total Power Dissipation (Tc=25°C)..... 20 W
- Maximum Voltages and Currents
  - BVCBO Collector to Base Voltage ..... -120 V
  - BVCEO Collector to Emitter Voltage ..... -120 V
  - BVEBO Emitter to Base Voltage ..... -3 V
  - IC Collector Current ..... -200 mA
  - IC Peak Collector Current ..... -400 mA

## Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	-120	-	-	V	IC=-10uA, IE=0
BVCEO	-120	-	-	V	IC=-1mA, IB=0
BVEBO	-3	-	-	V	IE=-100uA, IC=0
ICBO	-	-	-100	nA	VCB=-80V
IEBO	-	-	-100	nA	VEB=-2V,
*VCE(sat)	-	-	-1	V	IC=-30mA, IB=-3mA
*VBE(sat)	-	-	-1	V	IC=-30mA, IB=-3mA
*hFE1	60	160	320		VCE=-10V, IC=-10mA
*hFE2	40	-	-		VCE=-10V, IC=-100mA
fT	400	-	-	MHz	VCE=-10V, IC=-50mA
Cob	2.8	-	-	pF	VCB=-30V, f=1MHz

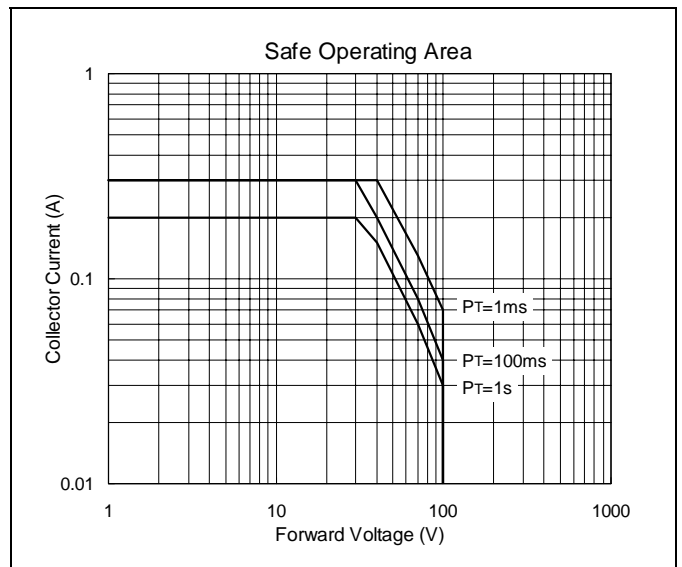
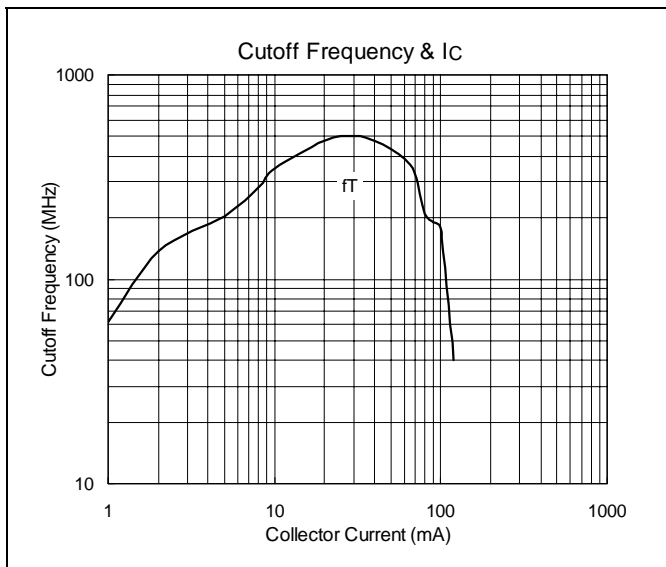
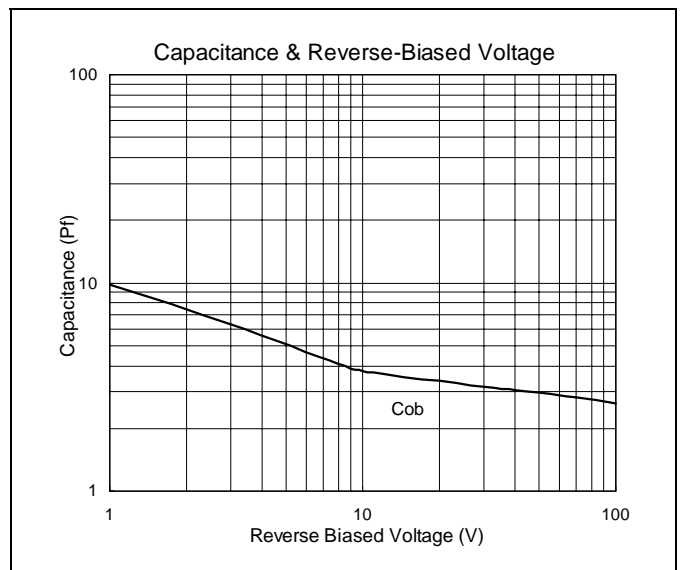
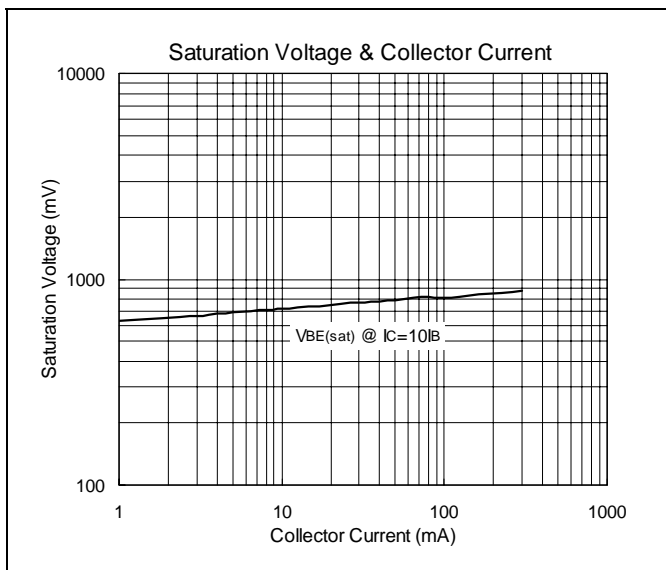
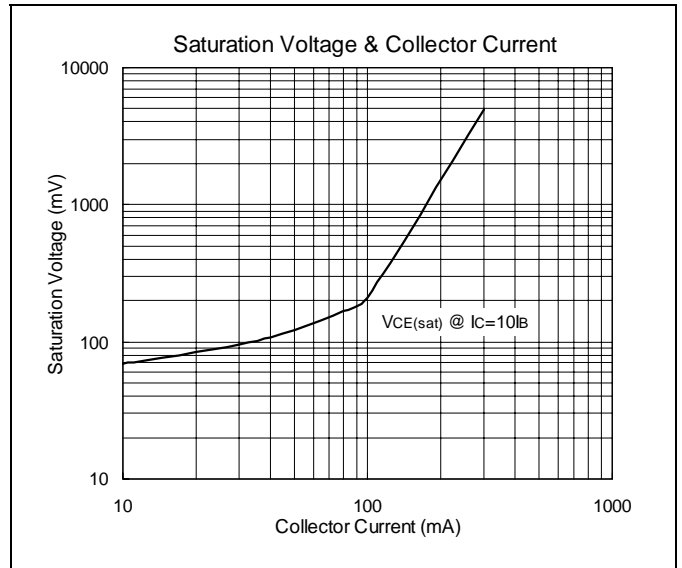
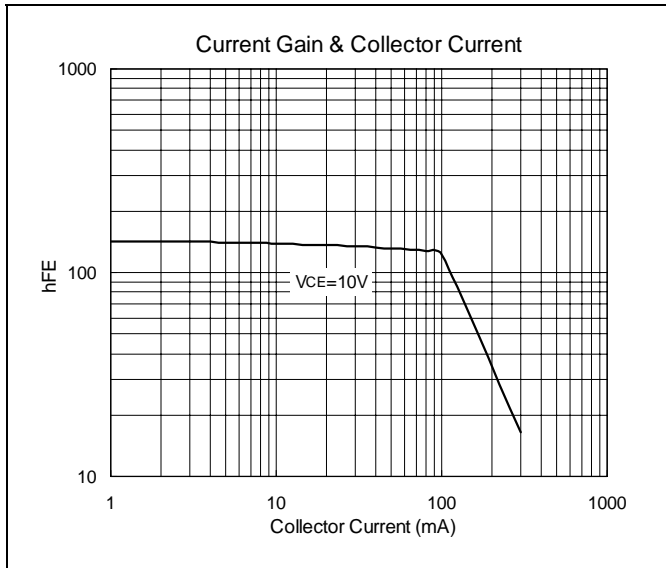
\*Pulse Test : Pulse Width ≤380us, Duty Cycle≤2%

## Classification Of hFE1

Rank	D	E	F
Range	60-120	100-200	160-320

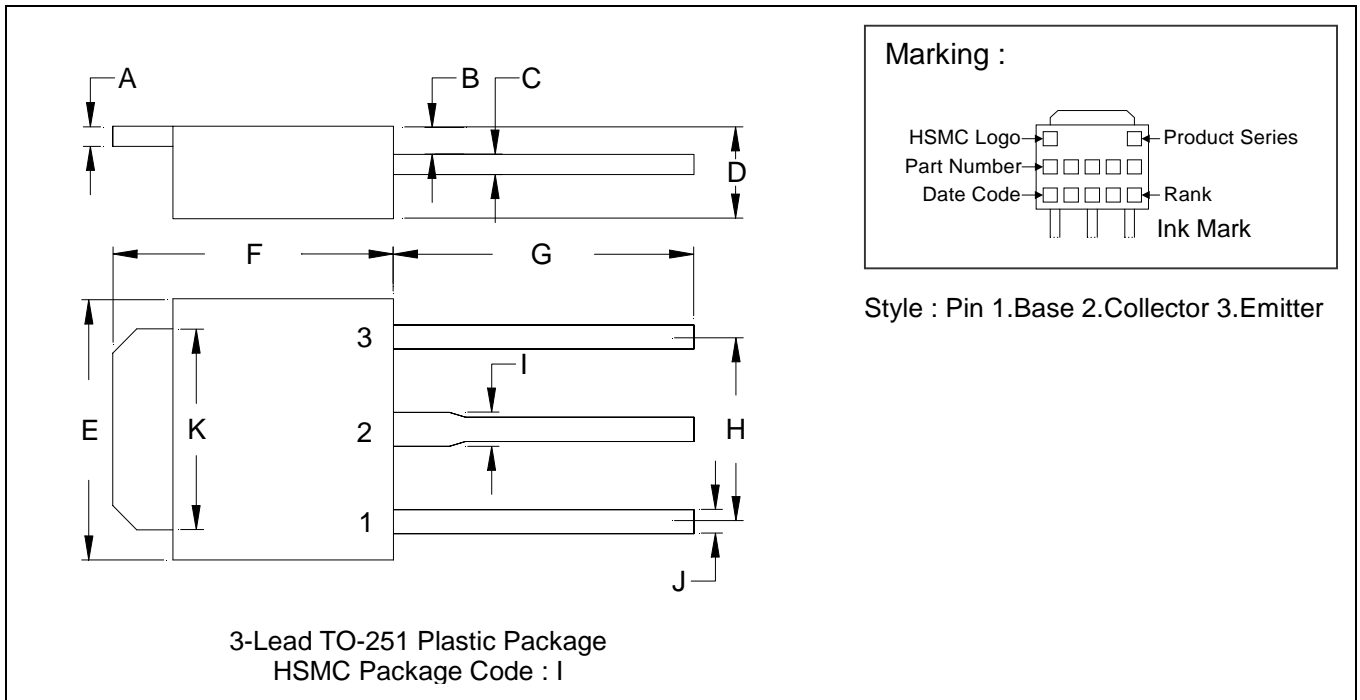


### Characteristics Curve





## 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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