

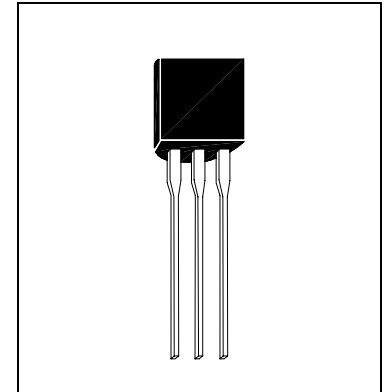


# HDY227

NPN EPITACIAL PLANAR TRANSISTOR

## Description

Low frequency power amplifier.



## 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 ..... 30 V  
 VCEO Collector to Emitter Voltage ..... 25 V  
 VEBO Emitter to Base Voltage ..... 5 V  
 IC Collector Current ..... 300 mA

## Characteristics (Ta=25°C)

Symbol	Min.	Max.	Unit	Test Conditions
BVCBO	30	-	V	IC=100uA, IE=0
BVCEO	25	-	V	IC=10mA, IB=0
BVEBO	5	-	V	IE=10uA, IC=0
ICBO	-	100	nA	VCB=25V, IE=0
IEBO	-	100	nA	VEB=3V, IC=0
*VCE(sat)	-	400	mV	IC=300mA, IB=30mA
*hFE	70	400	-	IC=50mA, VCE=1V

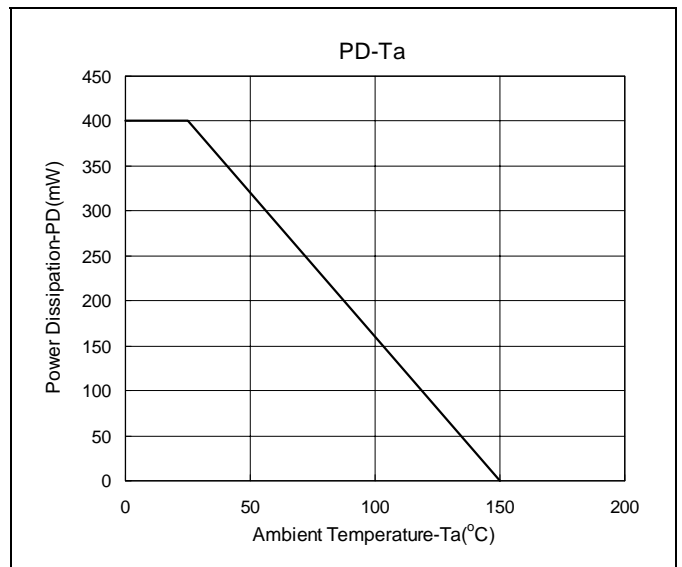
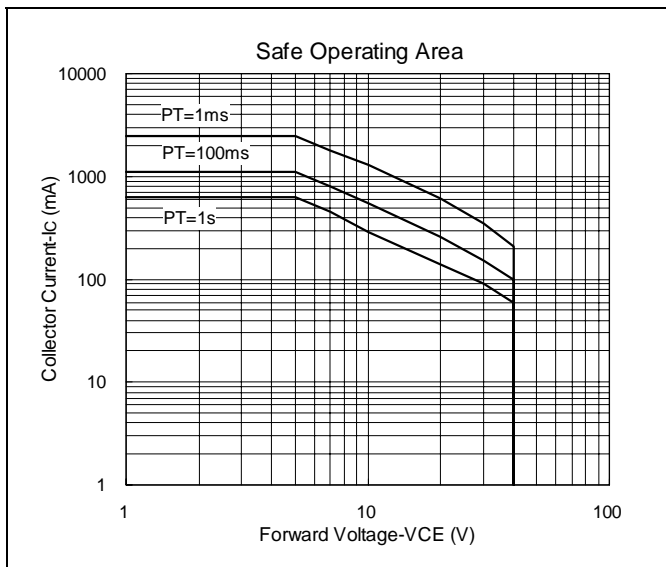
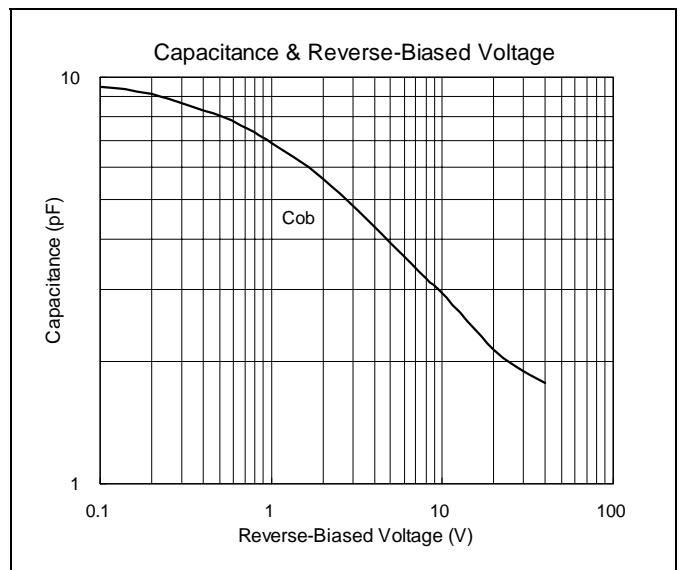
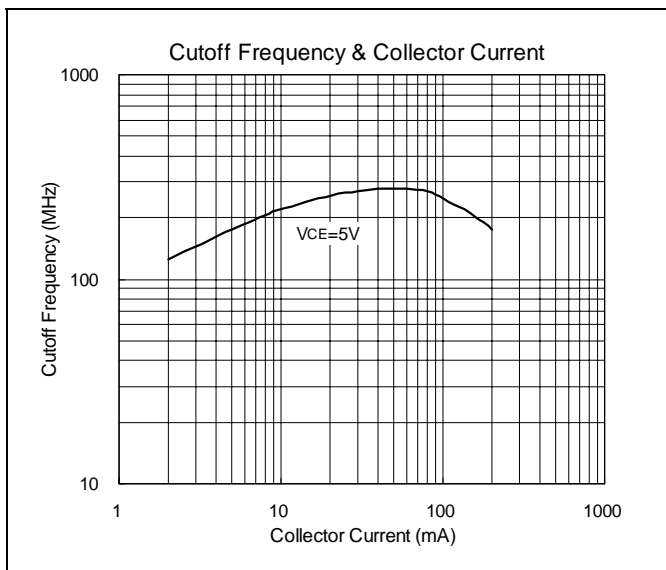
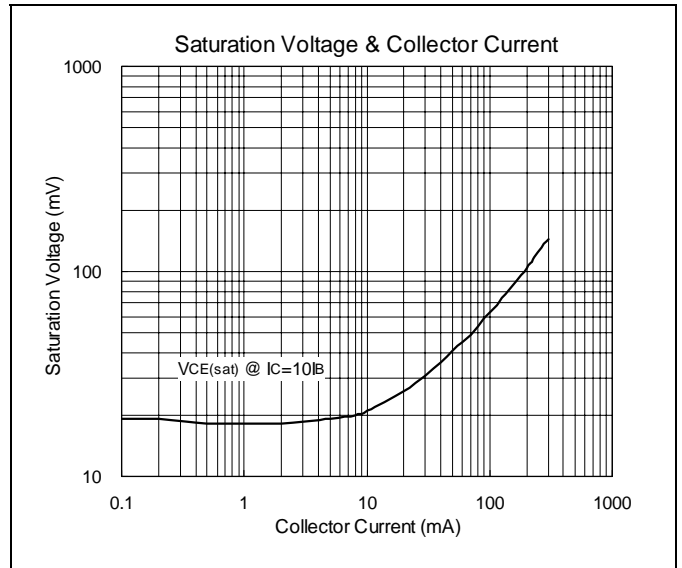
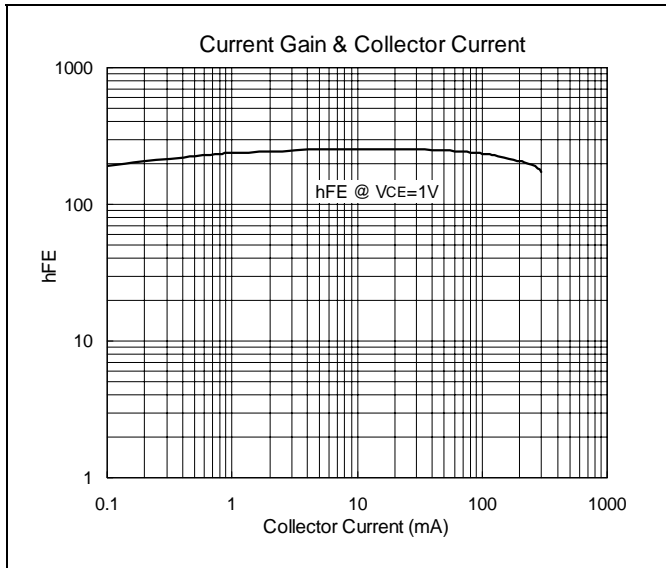
\*Pulse Test : Pulse Width ≤380us, Duty Cycle≤2%

## Classification of hFE

Rank	O	Y	G
hFE	70-140	120-240	200-400



### 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. Base 3. Collector

\*: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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