

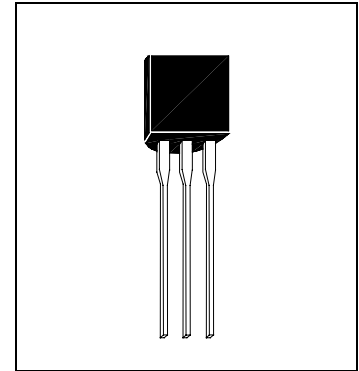


# HPN2369A

NPN EPITAXIAL PLANAR TRANSISTOR

## Description

The HPN2369A is designed for general purpose switching and amplifier applications.



## Features

- Low Collector Saturation Voltage
- High Speed Switching Transistor

## Absolute Maximum Ratings

- Maximum Temperatures
  - Storage Temperature ..... -55 ~ +150 °C
  - Junction Temperature ..... +150 °C Maximum
- Maximum Power Dissipation
  - Total Power Dissipation (Ta=25°C) ..... 625 mW
- Maximum Voltages and Currents (Ta=25°C)
  - VCBO Collector to Base Voltage ..... 40 V
  - VCES Collector to Emitter Voltage..... 40 V
  - VCEO Collector to Emitter Voltage ..... 15 V
  - VEBO Emitter to Base Voltage ..... 4.5 V
  - IC Collector Current ..... 200 mA
  - ICM Peak Collector Current ..... 300 mA

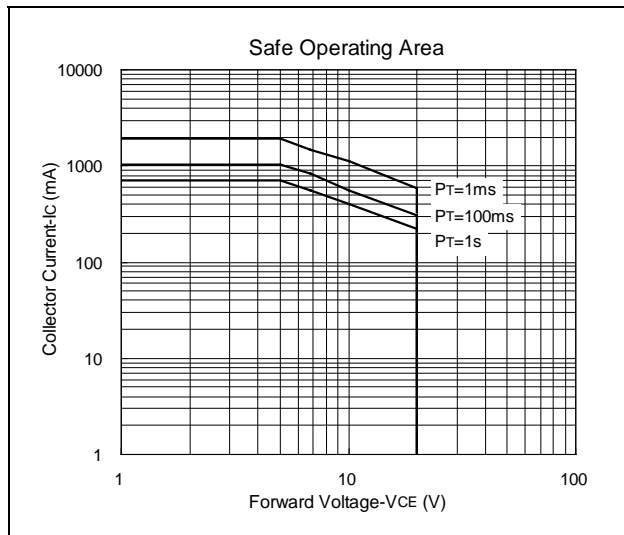
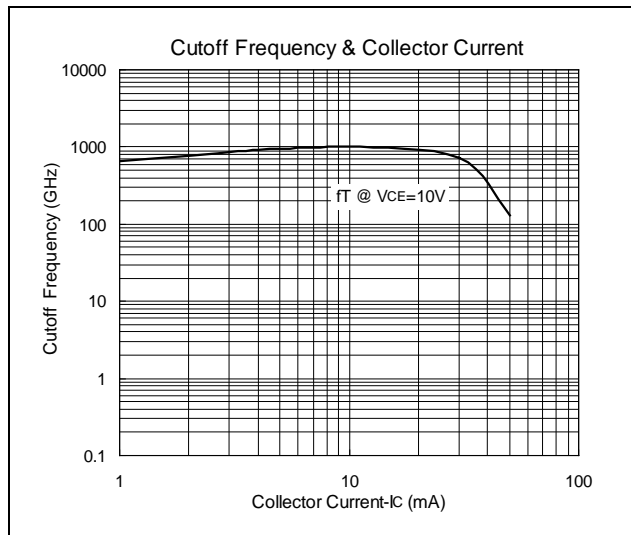
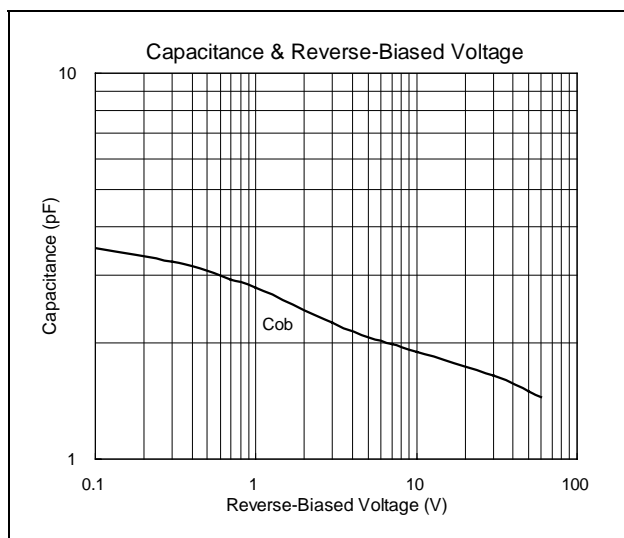
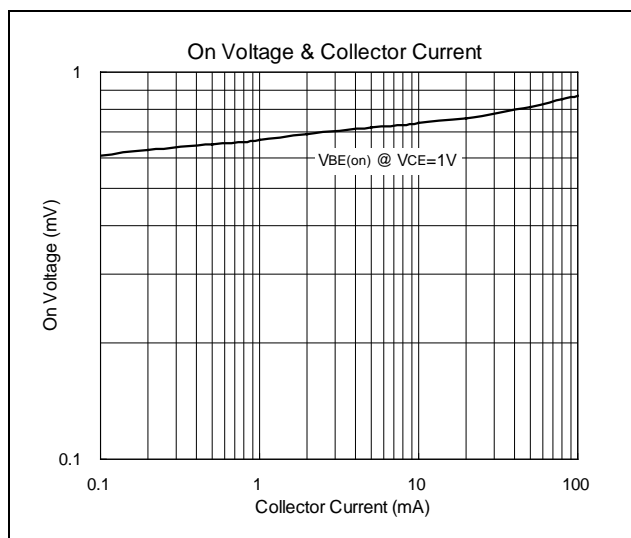
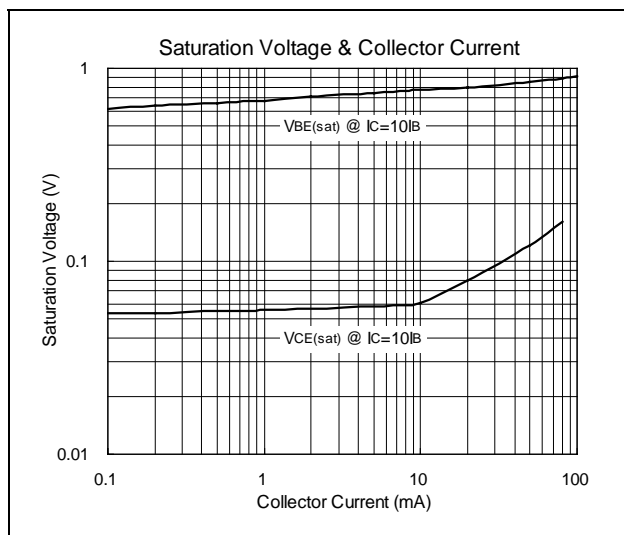
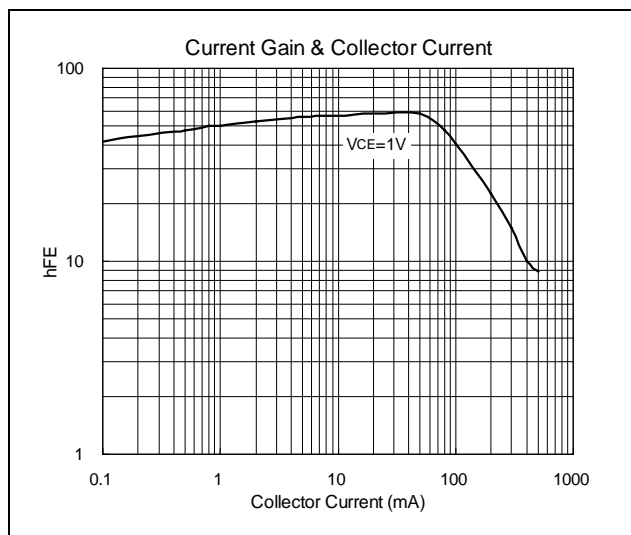
## Characteristics (Ta=25°C)

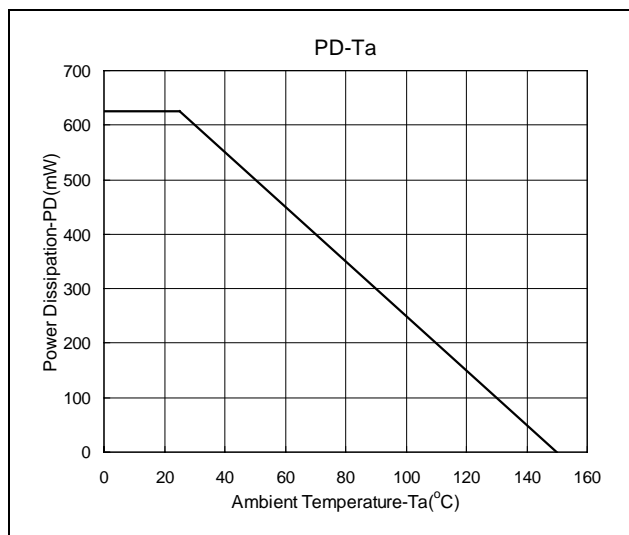
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	40	-	-	V	IC=10uA, IE=0
BVCES	40	-	-	V	IC=10uA, VBE=0
BVEBO	4.5	-	-	V	IE=10uA, IC=0
IEBO	-	-	100	nA	VEB=4V, IC=0
ICBO	-	-	400	nA	VCB=20V, IE=0
ICES	-	-	400	nA	VCE=40V, VBE=0
*VCE(sat)1	-	-	200	mV	IC=10mA, IB=1mA
*VCE(sat)2	-	-	250	mV	IC=30mA, IB=3mA
*VCE(sat)3	-	-	300	mV	IC=10mA, IB=10mA
*VCE(sat)4	-	-	500	mV	IC=100mA, IB=10mA
*VBE(sat)	700	-	850	mV	IC=10mA, IB=1mA
*hFE1	40	-	120		IC=10mA, VCE=0.35V
*hFE2	30	-	-		IC=30mA, VCE=0.4V
*hFE3	20	-	-		IC=100mA, VCE=1V
fT	500	-	-	MHz	IC=10mA, VCE=10V, f=100MHz
Cob	-	-	4	pF	VCB=5V, f=1MHz

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



### Characteristics Curve







## TO-92 Dimension

**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

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

\*: 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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