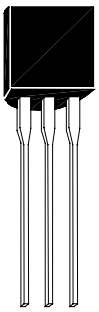
# H2N5551

NPN EPITAXIAL PLANAR TRANSISTOR



TO-92

## Description

The H2N5551 is designed for amplifier transistor.

## Features

- Complements to PNP Type H2N5401
- High Collector-Emitter Breakdown Voltage (VCEO>160V (@IC=1mA))

## 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 ..... 180 V
  VCEO Collector to Emitter Voltage ..... 160 V
  VEBO Emitter to Base Voltage ..... 6 V
  IC Collector Current ..... 600 mA

## Characteristics (Ta=25°C)

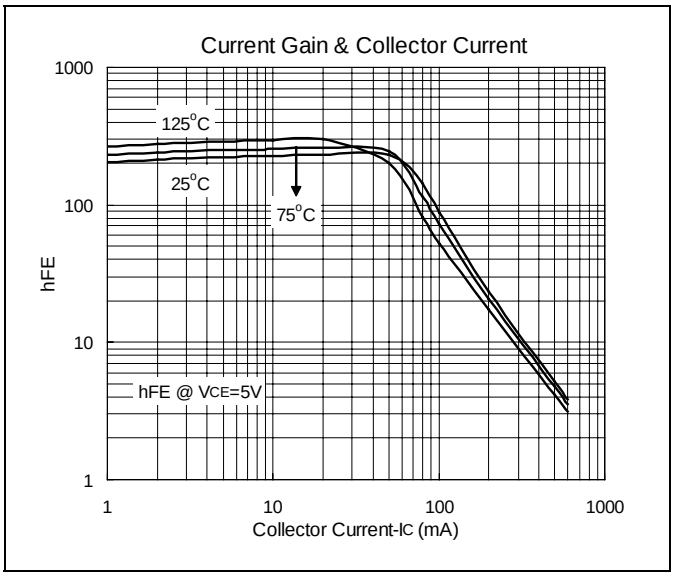
| Symbol | Min. | Typ. | Max. | Unit | Test Conditions |
|---|---|---|---|---|---|
| BVCBO | 180 | - | - | V | IC=100uA, IE=0 |
| BVCEO | 160 | - | - | V | IC=1mA, IB=0 |
| BVEBO | 6 | - | - | V | IE=10uA, IC=0 |
| ICBO | - | - | 50 | nA | VCB=120V, IE=0 |
| IEBO | - | - | 50 | nA | VEB=4V, IC=0 |
| *VCE(sat)1 | - | - | 0.15 | V | IC=10mA, IB=1.0mA |
| *VCE(sat)2 | - | - | 0.2 | V | IC=50mA, IB=5mA |
| *VBE(sat)1 | - | - | 1 | V | IC=10mA, IB=1mA |
| *VBE(sat)2 | - | - | 1 | V | IC=50mA, IB=5mA |
| *hFE1 | 80 | - | - | | VCE=5V, IC=1mA |
| *hFE2 | 80 | 160 | 400 | | VCE=5V, IC=10mA |
| *hFE3 | 50 | - | - | | VCE=5V, IC=50mA |
| fT | 100 | - | 300 | MHz | VCE=10V, IC=10mA, f=100MHz |
| Cob | - | - | 6 | pF | VCB=10V, f=1MHz, IE=0 |

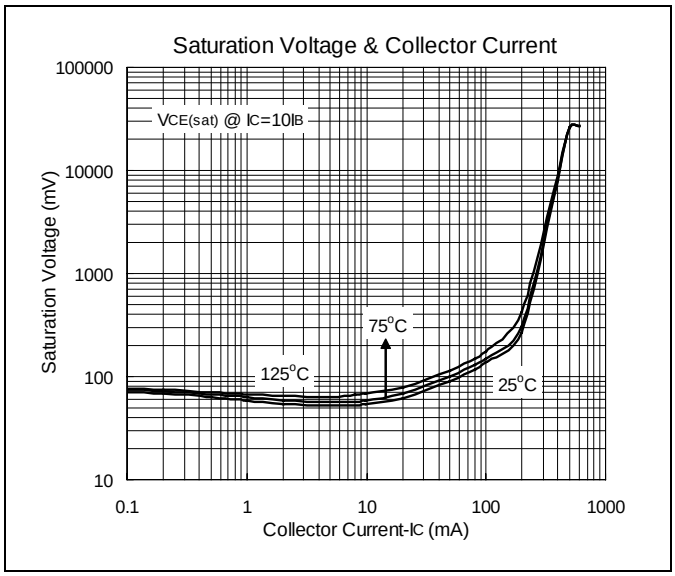
*Pulse Test: Pulse Width ≤380us, Duty Cycle≤2%

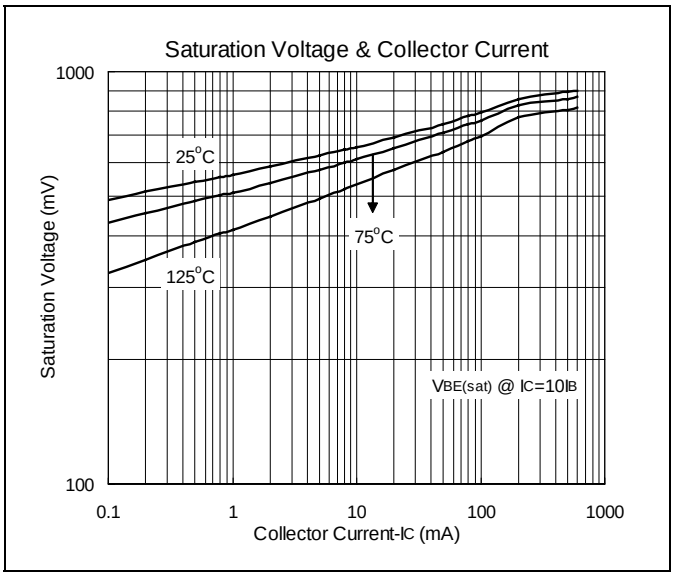
## Classification of hFE2

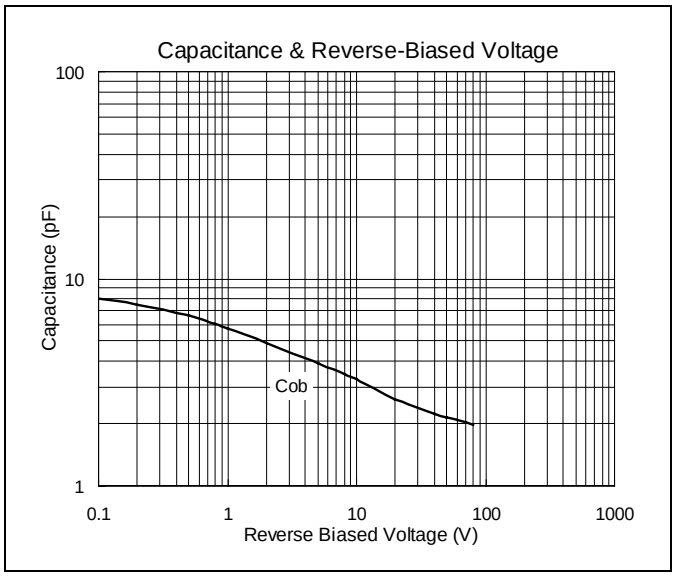
| Rank | A | N | C |
|---|---|---|---|
| Range | 80-200 | 100-250 | 160-400 |

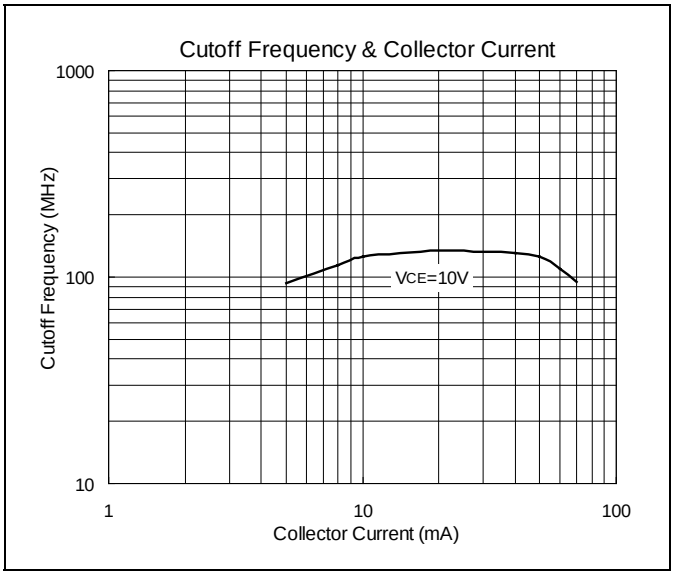
## Characteristics Curve

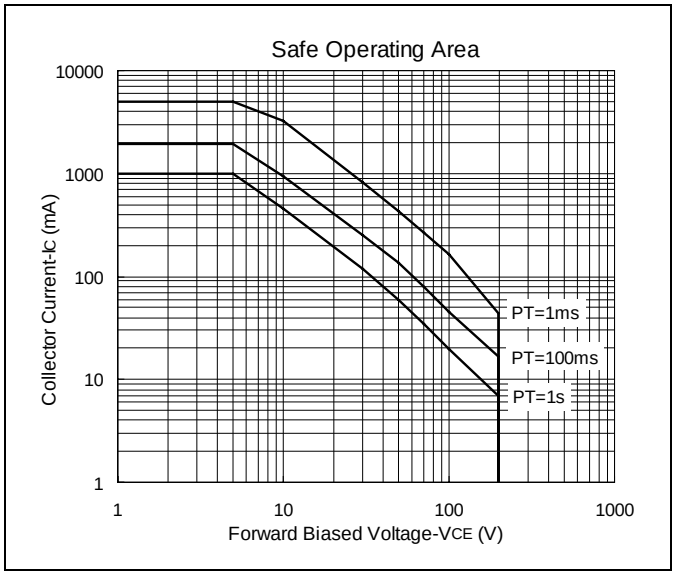


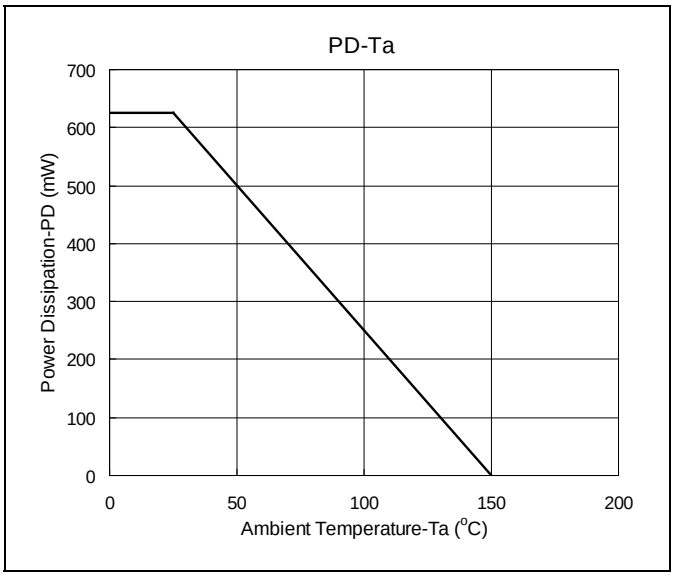



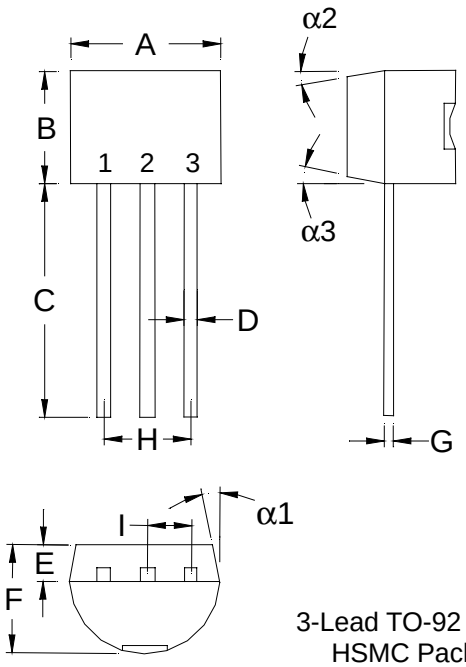



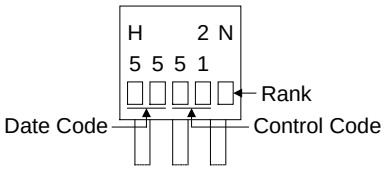




PD-Ta
Power Dissipation-PD (mW)
700
600
500
400
300
200
100
0
0
50
100
150
200
Ambient Temperature-Ta (°C)

## TO-92 Dimension




Marking:




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 | α1 | - | *5° | - | *5° |
| E | - | *0.0500 | - | *1.27 | α2 | - | *2° | - | *2° |
| F | 0.1323 | 0.1480 | 3.36 | 3.76 | α3 | - | *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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