



# H2N5551

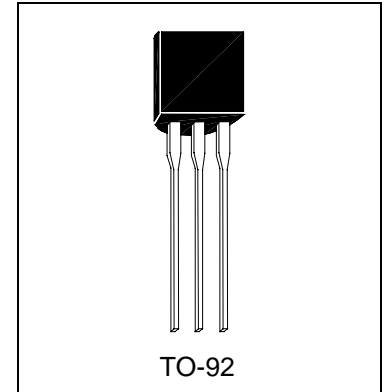
NPN EPITAXIAL PLANAR TRANSISTOR

## Description

The H2N5551 is designed for amplifier transistor.

## Features

- Complements to PNP Type H2N5401
- High Collector-Emitter Breakdown Voltage ( $V_{CEO} > 160V$  (@ $I_C = 1mA$ ))



## Absolute Maximum Ratings

- Maximum Temperatures  
 Storage Temperature ..... -55 ~ +150 °C  
 Junction Temperature ..... +150 °C Maximum
- Maximum Power Dissipation  
 Total Power Dissipation ( $T_a = 25^\circ C$ ) ..... 625 mW
- Maximum Voltages and Currents ( $T_a = 25^\circ C$ )  
 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 ( $T_a = 25^\circ C$ )

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	180	-	-	V	$I_C = 100\mu A, I_E = 0$
BVCEO	160	-	-	V	$I_C = 1mA, I_B = 0$
BVEBO	6	-	-	V	$I_E = 10\mu A, I_C = 0$
ICBO	-	-	50	nA	$V_{CB} = 120V, I_E = 0$
IEBO	-	-	50	nA	$V_{EB} = 4V, I_C = 0$
*VCE(sat)1	-	-	0.15	V	$I_C = 10mA, I_B = 1.0mA$
*VCE(sat)2	-	-	0.2	V	$I_C = 50mA, I_B = 5mA$
*VBE(sat)1	-	-	1	V	$I_C = 10mA, I_B = 1mA$
*VBE(sat)2	-	-	1	V	$I_C = 50mA, I_B = 5mA$
*hFE1	80	-	-		$V_{CE} = 5V, I_C = 1mA$
*hFE2	80	160	400		$V_{CE} = 5V, I_C = 10mA$
*hFE3	50	-	-		$V_{CE} = 5V, I_C = 50mA$
fT	100	-	300	MHz	$V_{CE} = 10V, I_C = 10mA, f = 100MHz$
Cob	-	-	6	pF	$V_{CB} = 10V, f = 1MHz, I_E = 0$

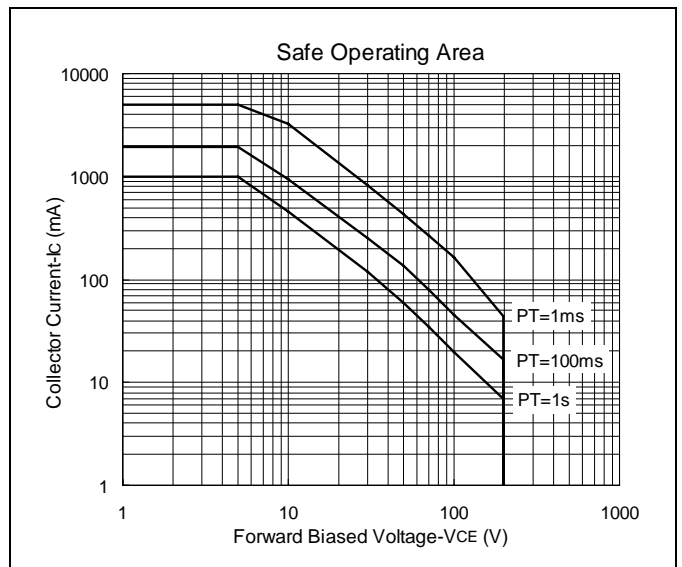
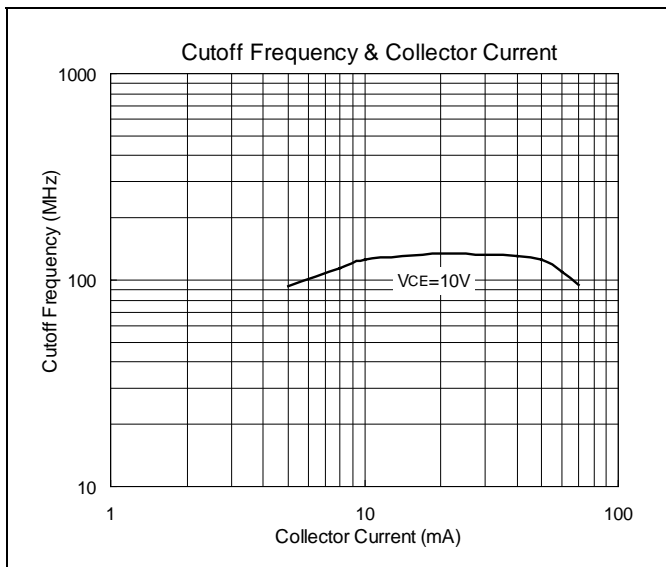
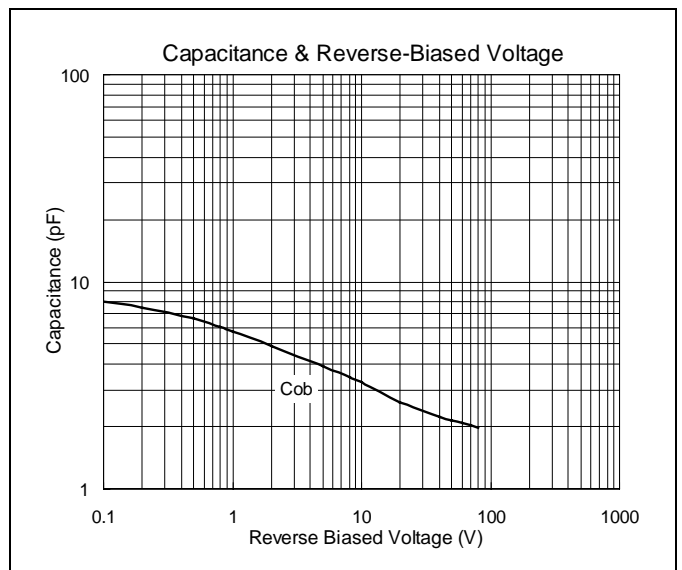
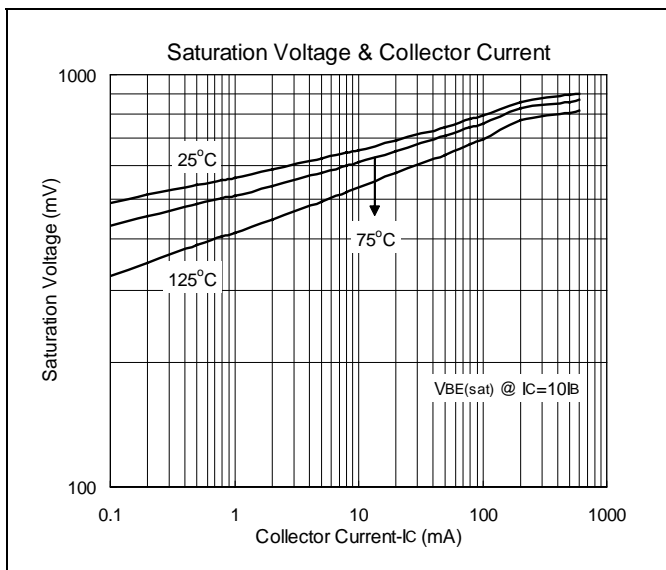
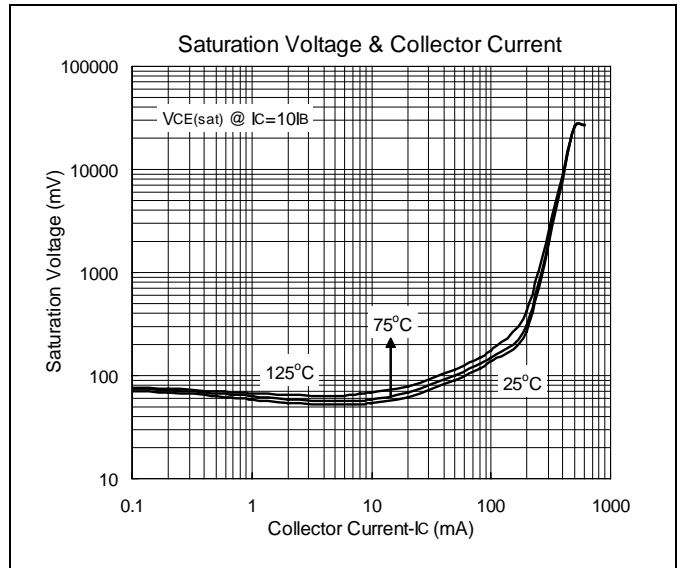
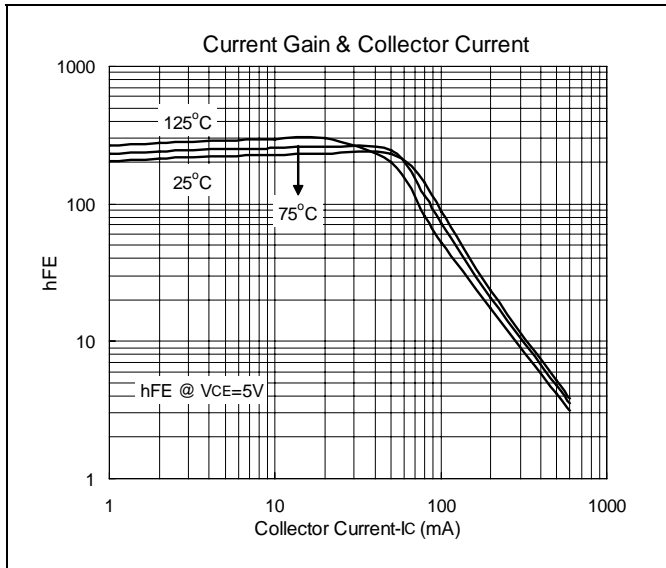
\*Pulse Test: Pulse Width  $\leq 380\mu s$ , Duty Cycle  $\leq 2\%$

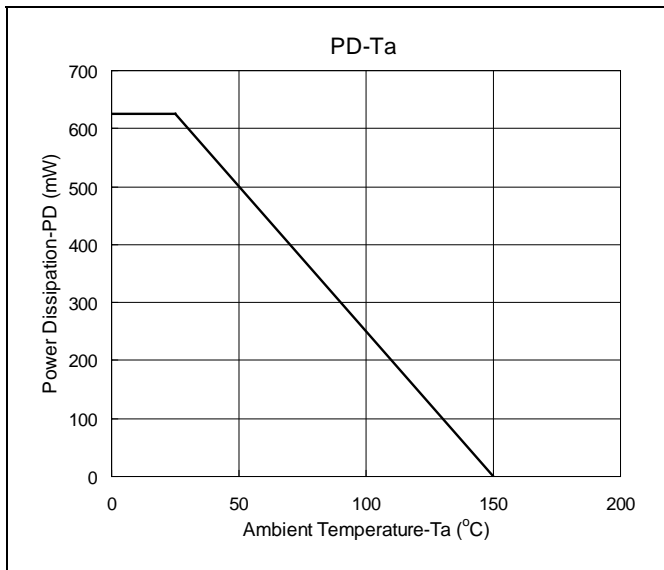
## Classification of hFE2

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



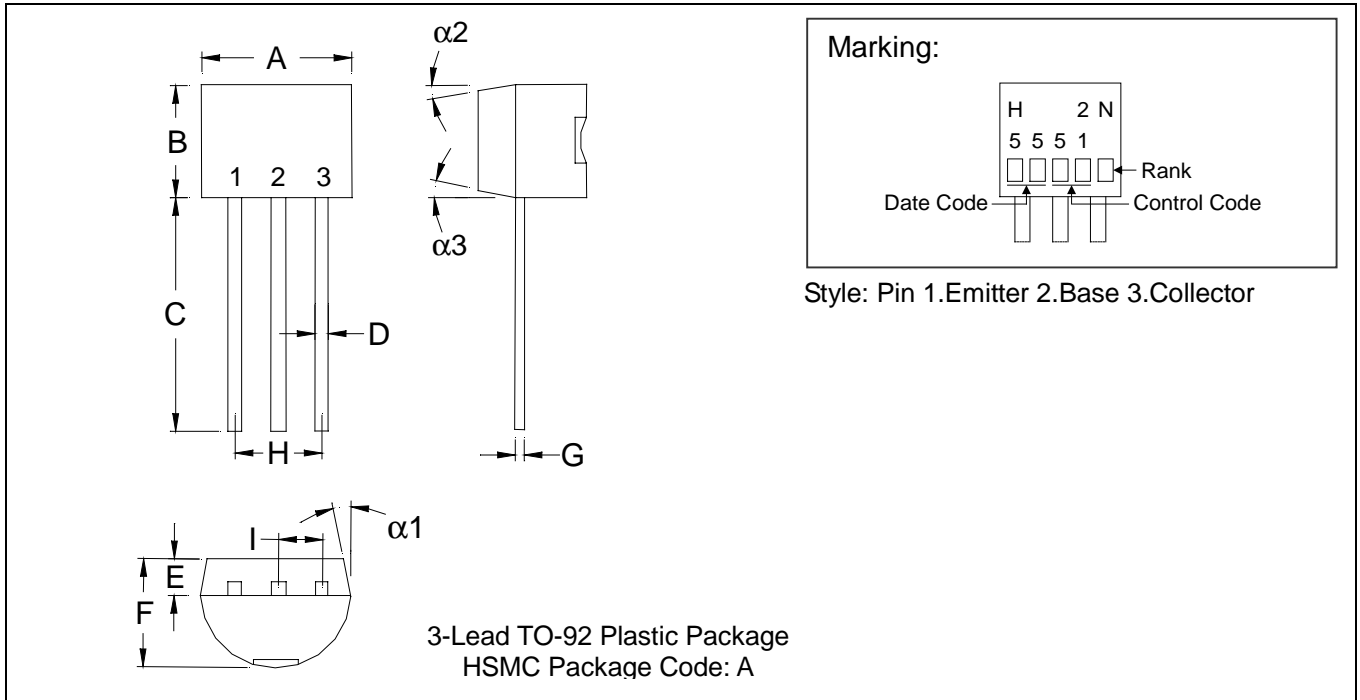
### Characteristics Curve







### TO-92 Dimension



\*: 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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