



# H2N5401

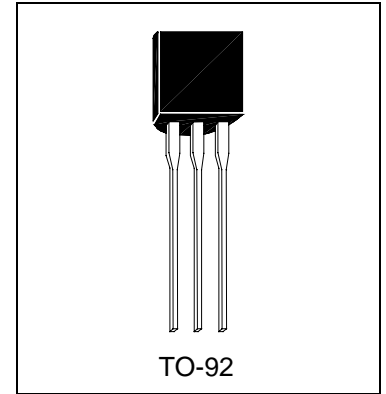
PNP EPITAXIAL PLANAR TRANSISTOR

## Description

The H2N5401 is designed for general purpose applications requiring high breakdown voltages.

## Features

- Complements to NPN Type H2N5551
- High Collector-Emitter Breakdown Voltage ( $V_{CEO}=150V$  (@ $I_C=1mA$ ))



## 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 ..... -160 V  
VCEO Collector to Emitter Voltage ..... -150 V  
VEBO Emitter to Base Voltage ..... -5 V  
IC Collector Current ..... -600 mA

## Characteristics ( $T_a=25^{\circ}C$ )

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	-160	-	-	V	$I_C=-100\mu A, I_E=0$
BVCEO	-150	-	-	V	$I_C=-1mA, I_B=0$
BVEBO	-5	-	-	V	$I_E=-10\mu A, I_C=0$
ICBO	-	-	-50	nA	$V_{CB}=-120V, I_E=0$
IEBO	-	-	-50	nA	$V_{EB}=-3V, I_C=0$
*VCE(sat)1	-	-	-0.2	V	$I_C=-10mA, I_B=-1mA$
*VCE(sat)2	-	-	-0.5	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	50	-	-		$V_{CE}=-5V, I_C=-1mA$
*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	$V_{CB}=-10V, f=1MHz, I_E=0$

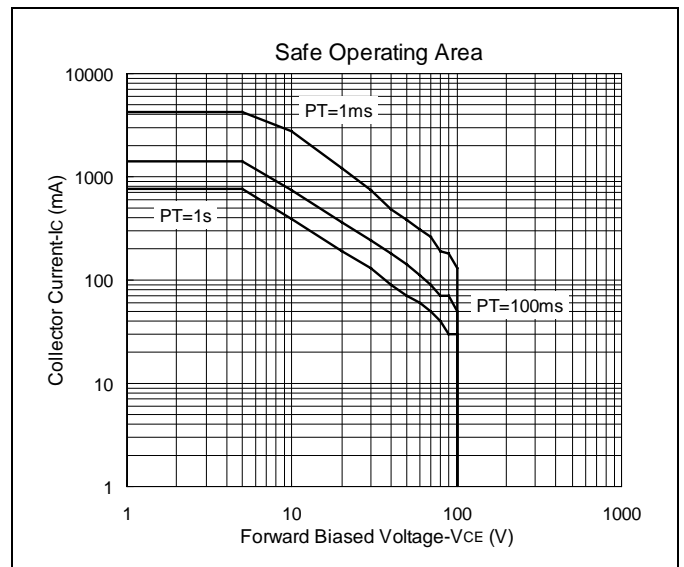
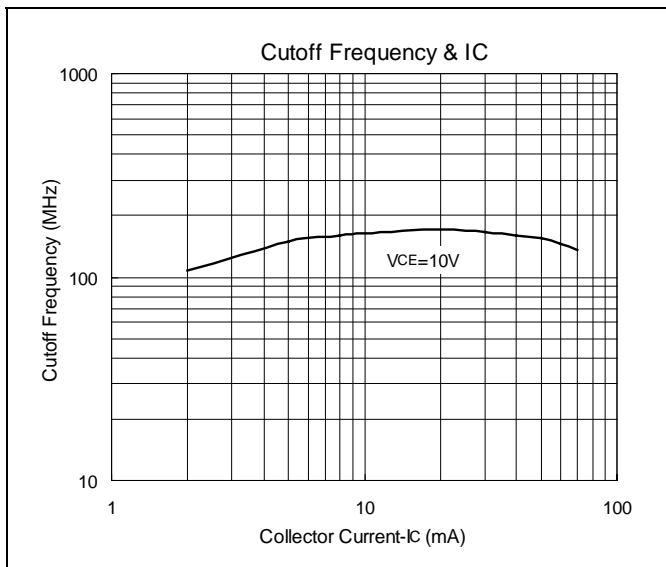
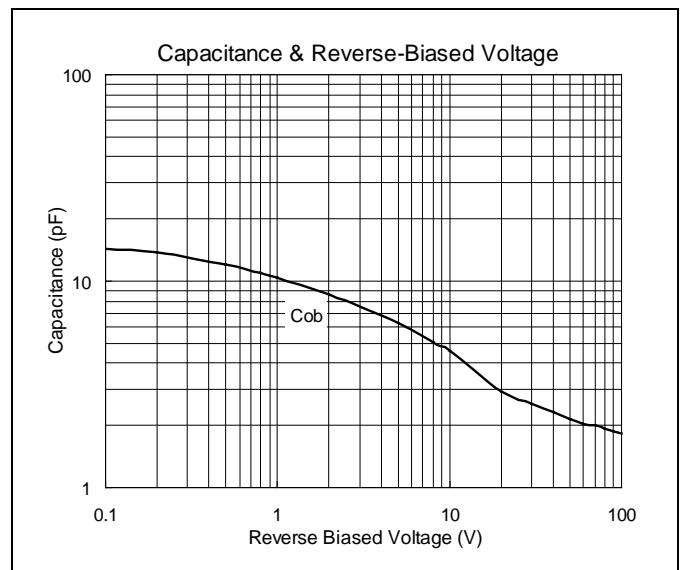
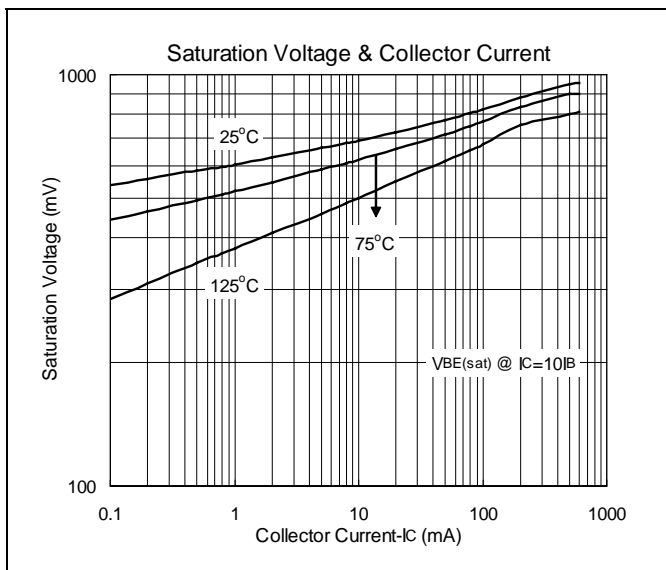
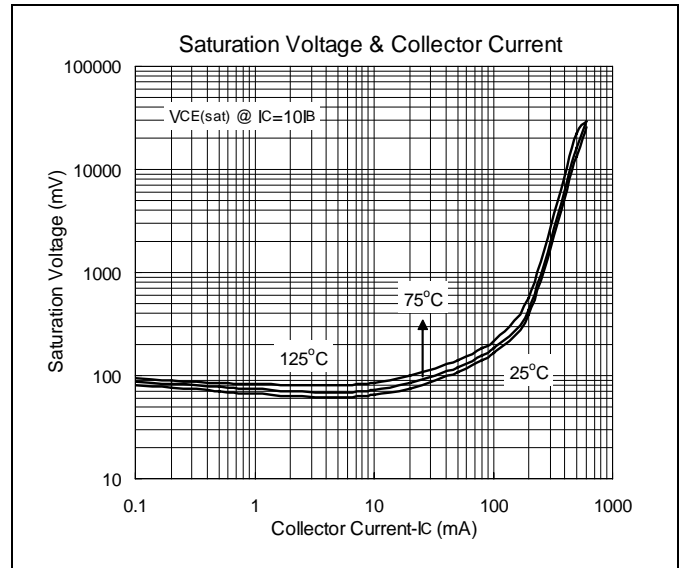
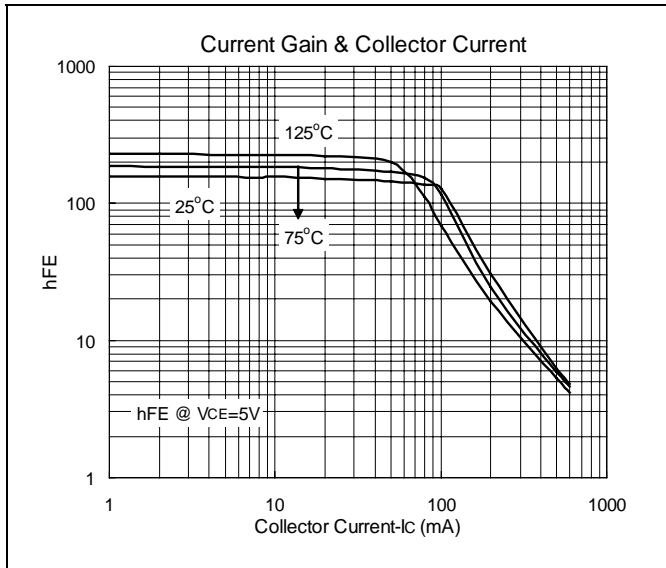
\*Pulse Test: Pulse Width  $\leq 380\mu s$ , Duty Cycle  $\leq 2\%$

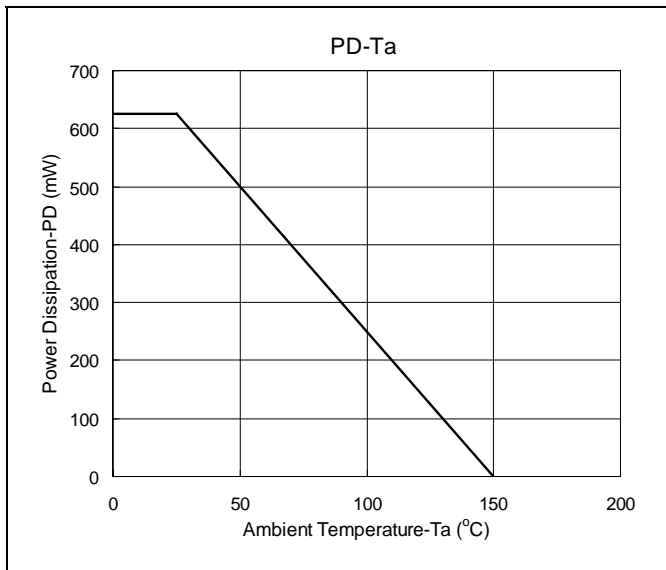
## Classification of hFE2

Rank	A	N	C
Range	80-200	100-240	160-400



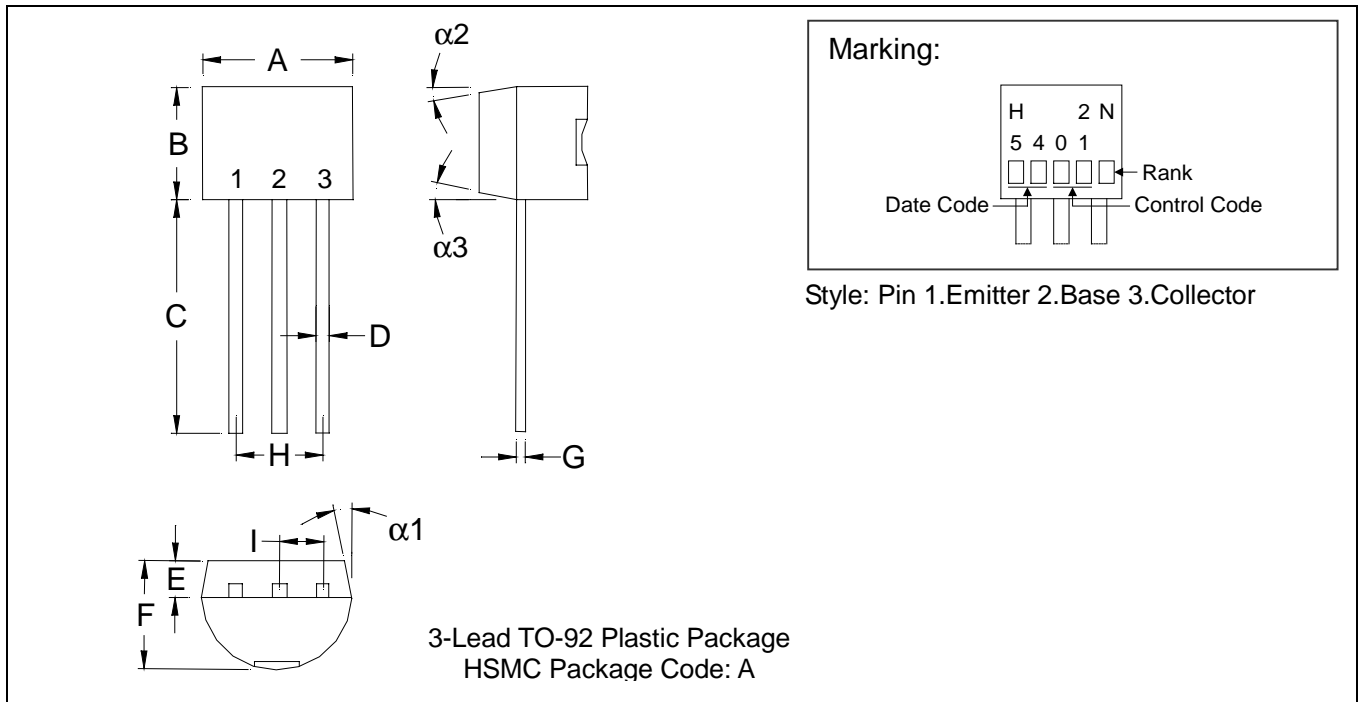
### Characteristics Curve







### 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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