



## 2N5401

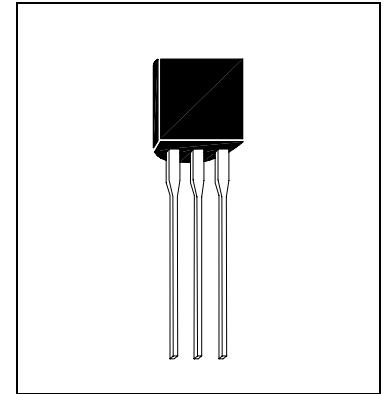
PNP EPITAXIAL PLANAR TRANSISTOR

### Description

The 2N5401 is designed for general purpose applications requiring high breakdown voltages.

### Features

- Complements to NPN Type 2N5551.
- High Collector-Emitter Breakdown Voltage.  $V_{CEO}=150V$  (@ $I_C=1mA$ )



### Absolute Maximum Ratings

- Maximum Temperatures
  - Storage Temperature .....  $-55\sim+150^{\circ}C$
  - Junction Temperature .....  $+150^{\circ}C$  Maximum
- Maximum Power Dissipation
  - Total Power Dissipation ( $T_a=25^{\circ}C$ ) ..... 625 mW
- Maximum Voltages and Currents ( $T_a=25^{\circ}C$ )
  - $V_{CBO}$  Collector to Base Voltage ..... 160 V
  - $V_{CEO}$  Collector to Emitter Voltage ..... 150 V
  - $V_{EBO}$  Emitter to Base Voltage ..... 5 V
  - $I_C$  Collector Current ..... 600 mA

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

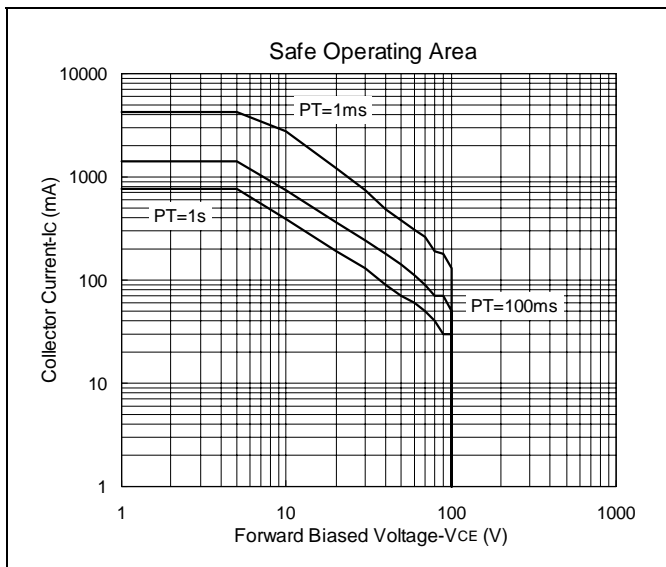
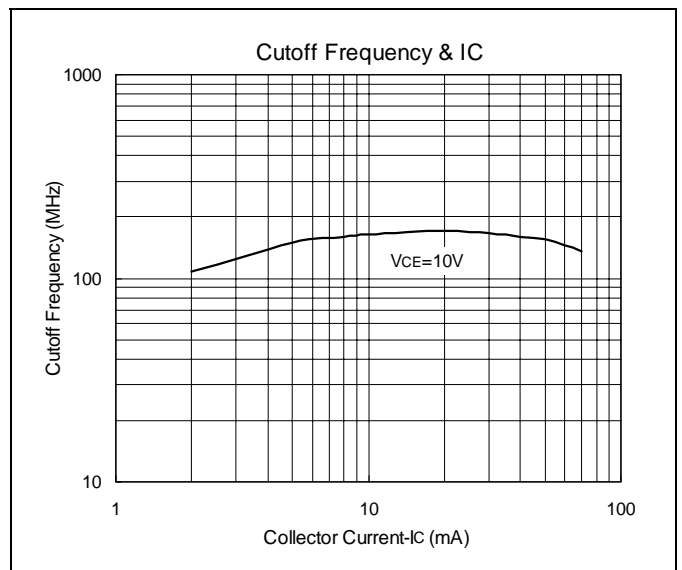
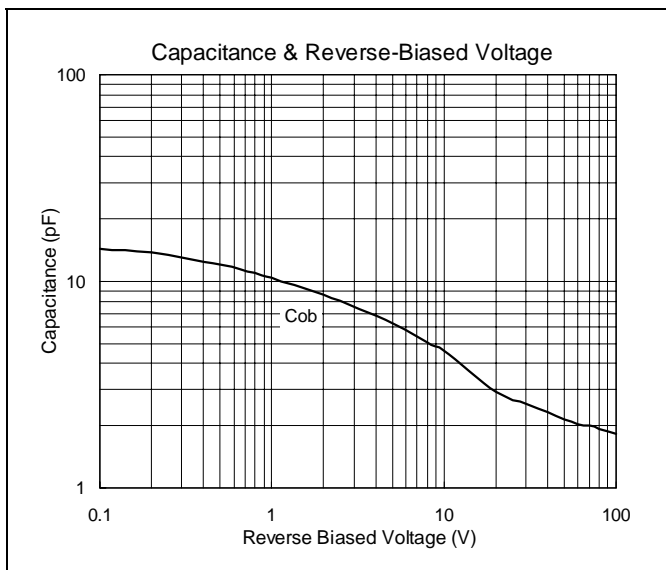
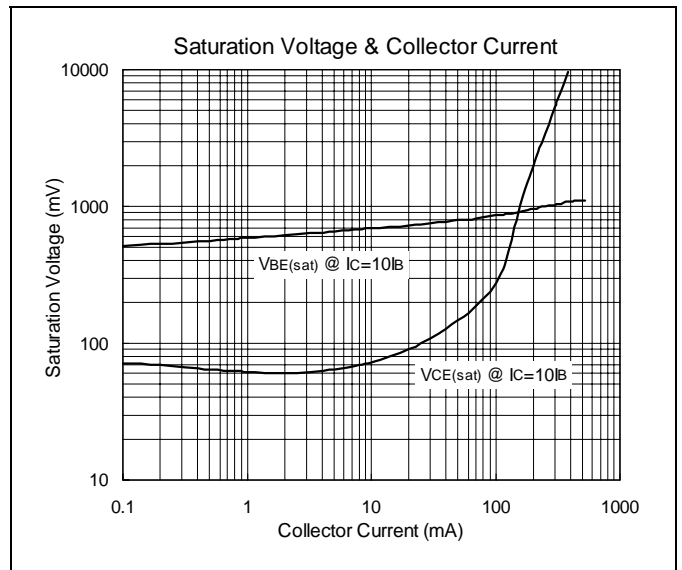
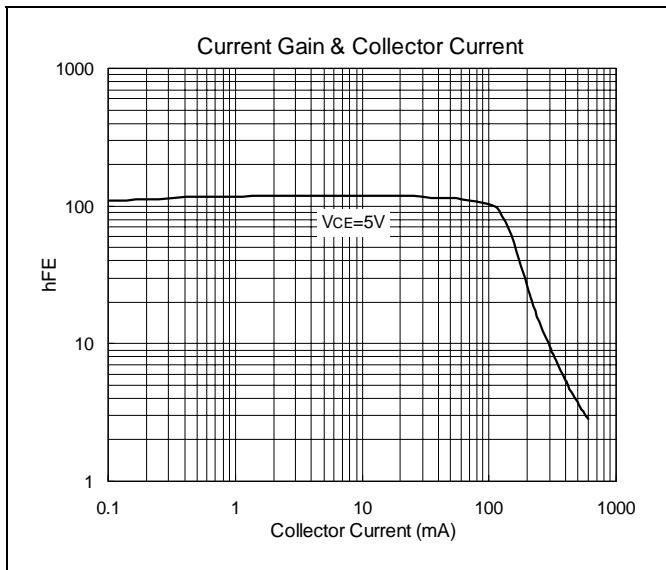
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
$V_{CBO}$	160	-	-	V	$I_C=100\mu A, I_E=0$
$V_{CEO}$	150	-	-	V	$I_C=1.0mA, I_B=0$
$V_{EBO}$	5	-	-	V	$I_E=10\mu A, I_C=0$
$I_{CBO}$	-	-	50	nA	$V_{CB}=120V, I_E=0$
$I_{EBO}$	-	-	50	nA	$V_{EB}=3V, I_C=0$
$V_{CE(sat)1}$	-	-	0.2	V	$I_C=10mA, I_B=1.0mA$
$V_{CE(sat)2}$	-	-	0.5	V	$I_C=50mA, I_B=5mA$
$V_{BE(sat)1}$	-	-	1	V	$I_C=10mA, I_B=1mA$
$V_{BE(sat)2}$	-	-	1	V	$I_C=50mA, I_B=5mA$
$h_{FE1}$	>50	-	-		$V_{CE}=5V, I_C=1mA$
$h_{FE2}$	80	160	400		$V_{CE}=5V, I_C=10mA$
$h_{FE3}$	50	-	-		$V_{CE}=5V, I_C=50mA$
$f_T$	100	-	300	MHz	$V_{CE}=10V, I_C=10mA, f=100MHz$
$C_{ob}$	-	-	6	pF	$V_{CB}=10V, f=1MHz, I_E=0$

### Classification of $h_{FE2}$

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

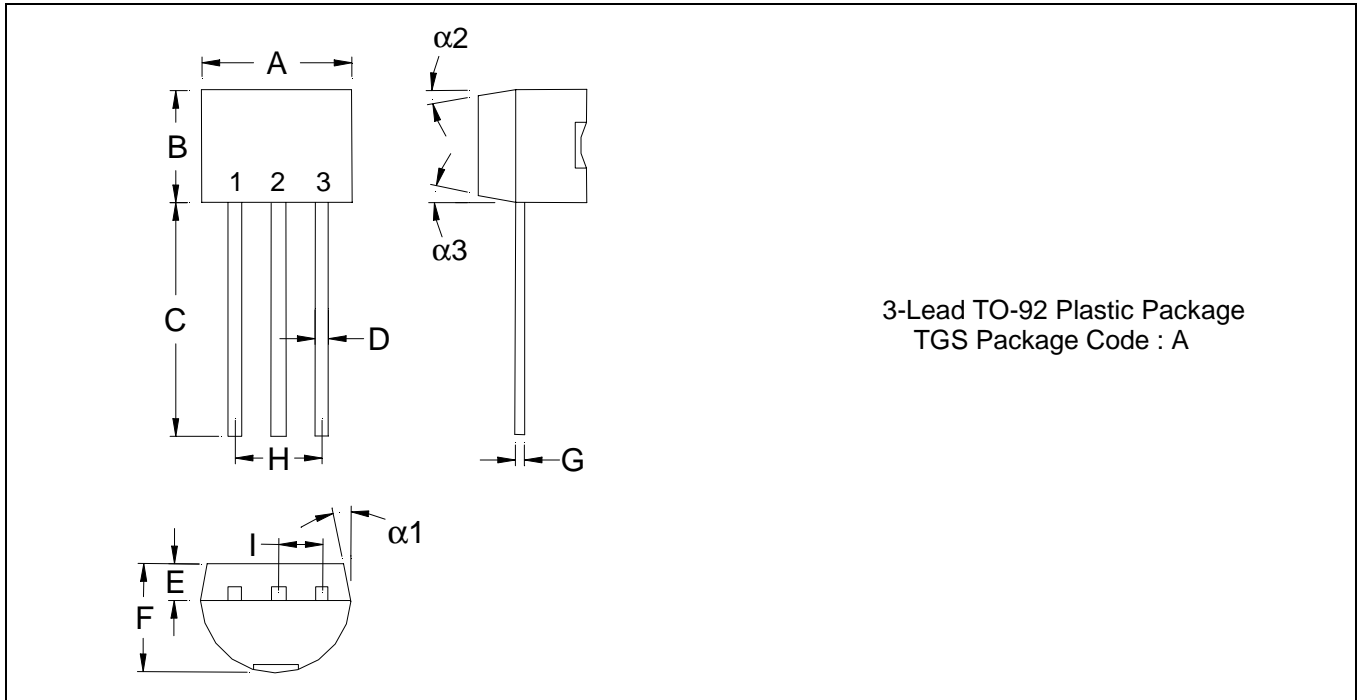


## Characteristics Curve





## 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°