



## 2N4401

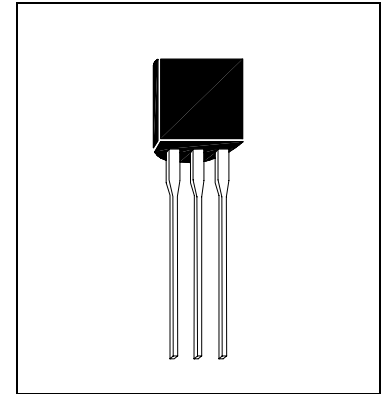
NPN EPITAXIAL PLANAR TRANSISTOR

### Description

The 2N4401 is designed for general purpose switching and amplifier applications.

### Features

- Complementary to 2N4403.
- High Power Dissipation : 625 mW at 25°C
- High DC Current Gain : 100-300 at 150mA
- High Breakdown Voltage : 40 V Min.



### Absolute Maximum Ratings

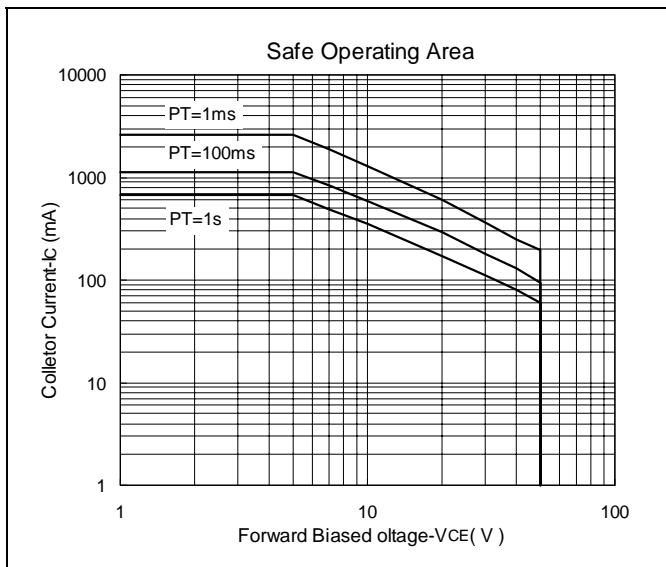
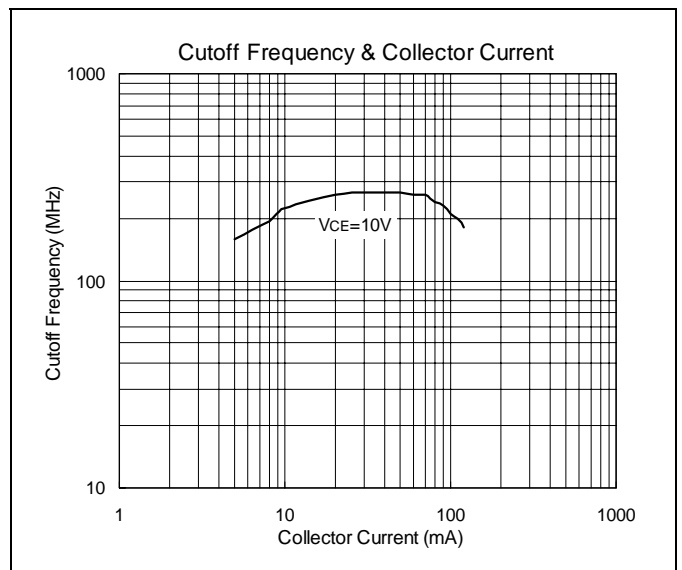
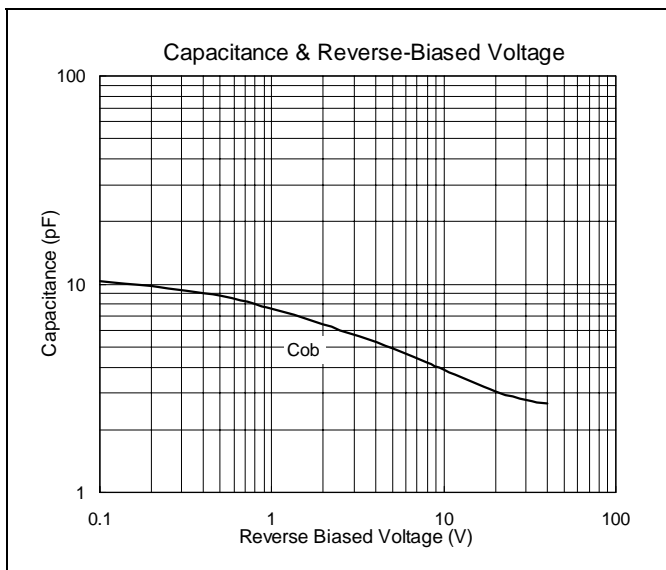
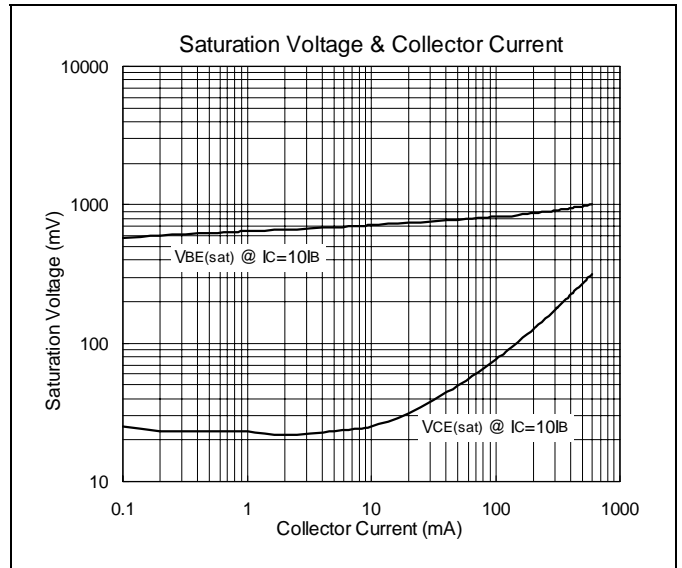
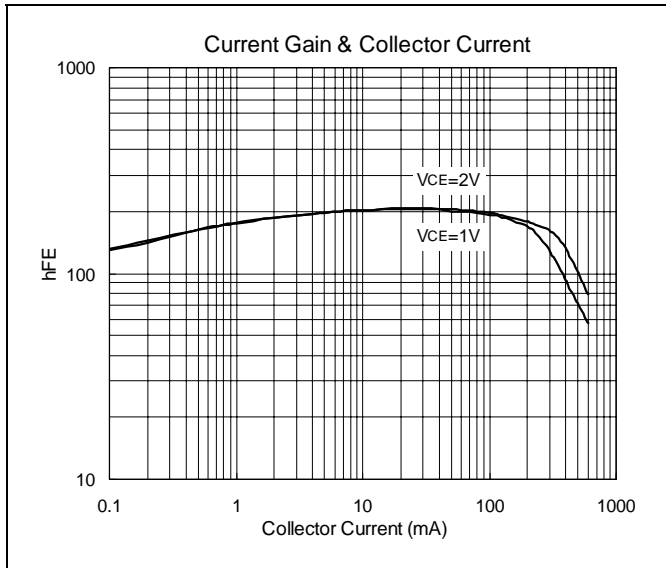
- Maximum Temperatures  
Storage Temperature..... -55~+150°C  
Junction Temperature..... +150°C Maximum
- Maximum Power Dissipation  
Total Power Dissipation (Ta=25°C) ..... 625 mW
- Maximum Voltages and Currents (Ta=25°C)  
VCBO Collector to Base Voltage ..... 60 V  
VCEO Collector to Emitter Voltage ..... 40 V  
VEBO Emitter to Base Voltage ..... 5.0 V  
IC Collector Current ..... 600 mA

### Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	60	-	-	V	IC=100uA, IE=0
BVCEO	40	-	-	V	IC=1mA, IB=0
BVEBO	5.0	-	-	V	IE=10uA, IC=0
ICEX	-	-	100	nA	VCE=35V, VBE=0.4V
VCE(sat)1	-	-	400	mV	IC=150mA, IB=15mA
VCE(sat)2	-	-	750	mV	IC=500mA, IB=50mA
VBE(sat)1	750	-	950	mV	IC=150mA, IB=15mA
VBE(sat)2	-	-	1.2	V	IC=500mA, IB=50mA
hFE1	20	-	-		VCE=1V, IC=0.1mA
hFE2	40	-	-		VCE=1V, IC=1mA
hFE3	80	-	-		VCE=1V, IC=10mA
hFE4	100	-	300		VCE=1V, IC=150mA
hFE5	40	-	-		VCE=2V, IC=500mA
fT	250	-	-	MHz	VCE=10V, IC=20mA,, f=100MHz
Cob	-	-	6.5	pF	VCB=5V, IE=0, f=1MHz

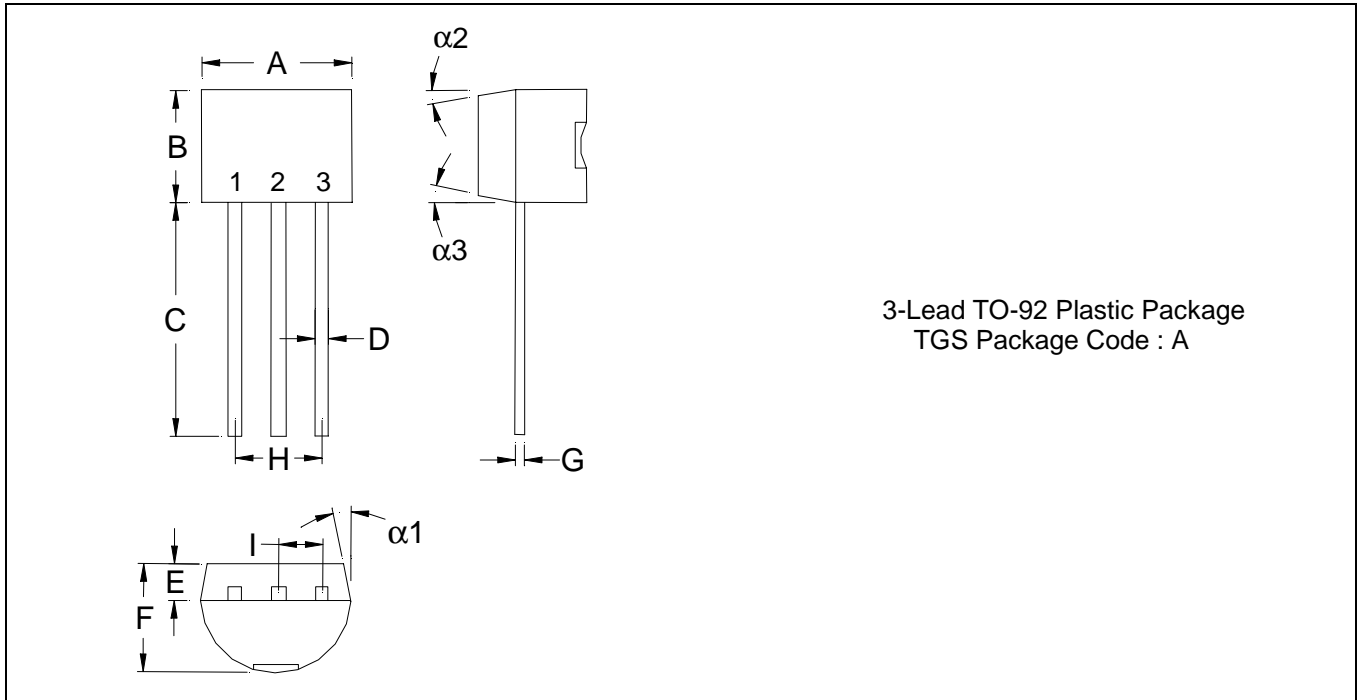


## Characteristics Curve





## 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°