



# TO-92 Plastic-Encapsulate Transistors

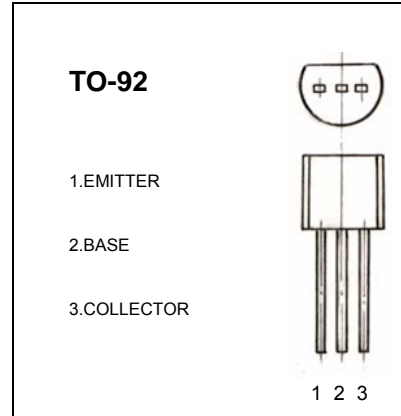
## 2N5401 TRANSISTOR (PNP)

### FEATURE

- Switching and amplification in high voltage
- Applications such as telephony
- Low current(max. 600mA)
- High voltage(max.160v)

### MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise noted)

Symbol	Parameter	Value	Units
V <sub>CB0</sub>	Collector-Base Voltage	-160	V
V <sub>CE0</sub>	Collector-Emitter Voltage	-150	V
V <sub>EBO</sub>	Emitter-Base Voltage	-5	V
I <sub>C</sub>	Collector Current -Continuous	-0.6	A
P <sub>C</sub>	Collector Power Dissipation	0.625	W
T <sub>j</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature	-55-150	°C



### ELECTRICAL CHARACTERISTICS (T<sub>amb</sub>=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> = -100μA, I <sub>E</sub> =0	-160			V
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = -1mA, I <sub>B</sub> =0	-150			V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> = -10μA, I <sub>C</sub> =0	-5			V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> = -120 V, I <sub>E</sub> =0			-50	nA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = -3V, I <sub>C</sub> =0			-50	nA
DC current gain	h <sub>FE(1)</sub>	V <sub>CE</sub> = -5V, I <sub>C</sub> =-1 mA	80			
	h <sub>FE(2)</sub>	V <sub>CE</sub> = -5V, I <sub>C</sub> = -10 mA	60		240	
	h <sub>FE(3)</sub>	V <sub>CE</sub> = -5V, I <sub>C</sub> =-50 mA	50			
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = -50mA, I <sub>B</sub> = -5 mA			-0.5	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = -50mA, I <sub>B</sub> = -5 mA			-1	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =-5V, I <sub>C</sub> =-10mA f =30MHZ	100		300	MHZ

# Typical Characteristics

2N5401

