

TO-92 Plastic-Encapsulate Transistors

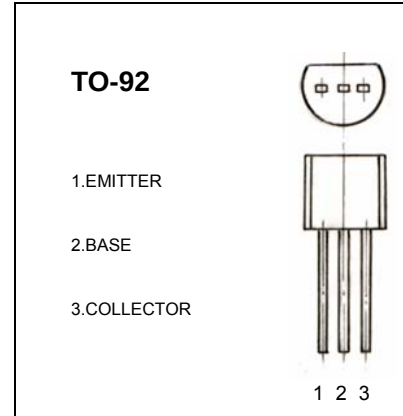
2N5401 TRANSISTOR (PNP)

FEATURE

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

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-160	V
V_{CEO}	Collector-Emitter Voltage	-150	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-0.6	A
P_C	Collector Power Dissipation	0.625	W
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55-150	$^{\circ}\text{C}$



ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu\text{A}$, $I_E = 0$	-160			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}$, $I_B = 0$	-150			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu\text{A}$, $I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -120\text{V}$, $I_E = 0$			-50	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = -3\text{V}$, $I_C = 0$			-50	nA
DC current gain	$h_{FE(1)}$	$V_{CE} = -5\text{V}$, $I_C = -1\text{mA}$	80			
	$h_{FE(2)}$	$V_{CE} = -5\text{V}$, $I_C = -10\text{mA}$	60		240	
	$h_{FE(3)}$	$V_{CE} = -5\text{V}$, $I_C = -50\text{mA}$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -50\text{mA}$, $I_B = -5\text{mA}$			-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -50\text{mA}$, $I_B = -5\text{mA}$			-1	V
Transition frequency	f_T	$V_{CE} = -5\text{V}$, $I_C = -10\text{mA}$, $f = 30\text{MHz}$	100		300	MHz

Typical Characteristics

2N5401

