



2N5401 TRANSISTOR (PNP)

TO – 92

FEATURES

- Switching and Amplification in High Voltage
- Applications such as Telephony
- Low Current
- High Voltage

1. EMITTER
2. BASE
3. COLLECTOR



MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CB0}	Collector-Base Voltage	-160	V
V _{CEO}	Collector-Emitter Voltage	-150	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _C	Collector Current	-0.6	A
P _C	Collector Power Dissipation	625	mW
R _{θJA}	Thermal Resistance From Junction To Ambient	200	°C/W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~+150	°C

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C = -0.1mA, I _E =0	-160			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =-1mA, I _B =0	-150			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =-0.01mA, I _C =0	-5			V
Collector cut-off current	I _{CB0}	V _{CB} =-120V, I _E =0			-50	nA
Emitter cut-off current	I _{EBO}	V _{EB} =-3V, I _C =0			-50	nA
DC current gain	h _{FE(1)}	V _{CE} =-5V, I _C =-1mA	80			
	h _{FE(2)}	V _{CE} =-5V, I _C =-10mA	60		300	
	h _{FE(3)}	V _{CE} =-5V, I _C =-50mA	50			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-50mA, I _B =-5mA			-0.5	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =-50mA, I _B =-5mA			-1	V
Transition frequency	f _T	V _{CE} =-5V, I _C =-10mA, f =30MHz	100		300	MHz

*Pulse test: pulse width ≤300μs, duty cycle≤ 2.0%.

CLASSIFICATION OF h_{FE(2)}

RANK		A	B	C
RANGE	60-100	100-150	150-200	200-300

Typical Characteristics

