



TO-92 Plastic-Encapsulate Transistors

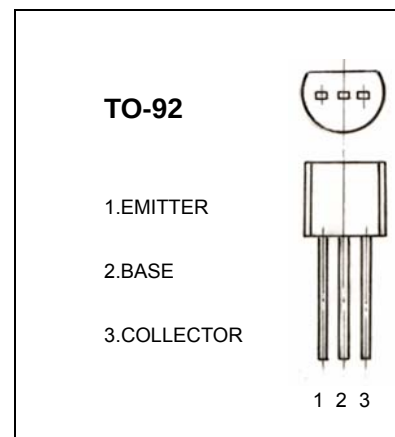
2N5400 TRANSISTOR (PNP)

FEATURE

- Switching and amplification in high voltage
Applications such as telephony
- Low current(max. 600mA)
- High voltage(max.130v)

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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-130	V
V_{CEO}	Collector-Emitter Voltage	-120	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	$V_{(BR)CBO}$	$I_C=-100\mu\text{A}$, $I_E=0$	-130			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-1\text{mA}$, $I_B=0$	-120			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}	$V_{CB}=-100\text{V}$, $I_E=0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-3\text{V}$, $I_C=0$			-0.1	μA
DC current gain	h_{FE1}	$V_{CE}=-5\text{V}$, $I_C=-1\text{mA}$	30			
	h_{FE2}	$V_{CE}=-5\text{V}$, $I_C=-10\text{mA}$	40		180	
	h_{FE3}	$V_{CE}=-5\text{V}$, $I_C=-50\text{mA}$	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-10\text{mA}$, $I_B=-1\text{mA}$			-0.2	V
	$V_{CE(sat)}$	$I_C=-50\text{mA}$, $I_B=-5\text{mA}$			-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-10\text{mA}$, $I_B=-1\text{mA}$			-1	V
	$V_{BE(sat)}$	$I_C=-50\text{mA}$, $I_B=-5\text{mA}$			-1	V
Transition frequency	f_T	$V_{CE}=-10\text{V}$, $I_C=-10\text{mA}$, $f=30\text{MHz}$	100			MHz
Collector output capacitance	C_{ob}	$V_{CB}=-10\text{V}$, $I_E=0$, $f=1\text{MHz}$			6	pF

Typical Characteristics

2N5400

