



# A94 TRANSISTOR (PNP)

## FEATURES

- High Breakdown Voltage



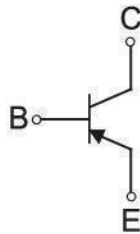
TO – 92

1.EMITTER

2.BASE

3.COLLECTOR

## Equivalent Circuit



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

Symbol	Parameter	Value	Unit
V <sub>CBO</sub>	Collector-Base Voltage	-400	V
V <sub>CEO</sub>	Collector-Emitter Voltage	-400	V
V <sub>EBO</sub>	Emitter-Base Voltage	-5	V
I <sub>C</sub>	Collector Current -Continuous	-0.2	A
I <sub>CM</sub>	Collector Current -Pulsed	-0.3	A
P <sub>C</sub>	Collector Power Dissipation	625	mW
R <sub>θJA</sub>	Thermal Resistance From Junction To ambient	200	°C /W
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature	-55~+150	°C

## ELECTRICAL CHARACTERISTICS

$T_a=25^\circ\text{C}$  unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu\text{A}, I_E=0$	-400			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-1\text{mA}, I_B=0$	-400			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100\mu\text{A}, I_C=0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=-400\text{V}, I_E=0$			-0.1	$\mu\text{A}$
Collector cut-off current	$I_{CEO}$	$V_{CE}=-400\text{V}, I_B=0$			-5	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=-4\text{V}, I_C=0$			-0.1	$\mu\text{A}$
DC current gain	$h_{FE(1)}$	$V_{CE}=-10\text{V}, I_C=-10\text{mA}$	80		300	
	$h_{FE(2)}$	$V_{CE}=-10\text{V}, I_C=-1\text{mA}$	70			
	$h_{FE(3)}$	$V_{CE}=-10\text{V}, I_C=-100\text{mA}$	60			
	$h_{FE(4)}$	$V_{CE}=-10\text{V}, I_C=-50\text{mA}$	80			
Collector-emitter saturation voltage	$V_{CE(sat)(1)}$	$I_C=-10\text{mA}, I_B=-1\text{mA}$			-0.2	V
	$V_{CE(sat)(2)}$	$I_C=-50\text{mA}, I_B=-5\text{mA}$			-0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-10\text{mA}, I_B=-1\text{mA}$			-0.75	V
Transition frequency	$f_T$	$V_{CE}=-20\text{V}, I_C=-10\text{mA}, f=30\text{MHz}$	50			MHz

### CLASSIFICATION OF $h_{FE(1)}$

RANK	A	B	C
RANGE	80-100	100-200	200-300

# Typical Characteristics

