

# TO-92 Plastic-Encapsulate Transistors

## A94 TRANSISTOR (PNP)

### FEATURES

High voltage

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

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	-400	V
$V_{CEO}$	Collector-Emitter Voltage	-400	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current -Continuous	-0.2	A
$P_C$	Collector Power Dissipation	0.625	W
$T_j$	Junction Temperature	150	$^{\circ}\text{C}$
$T_{stg}$	Storage Temperature	-55 to +150	$^{\circ}\text{C}$

### TO-92

1. EMITTER
2. BASE
3. COLLECTOR



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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu\text{A}$ , $I_E = 0$	-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			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -10\text{mA}$ , $I_B = -1\text{mA}$			-0.2	V
	$V_{CE(sat)}$	$I_C = -50\text{mA}$ , $I_B = -5\text{mA}$			-0.3	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

## Typical Characteristics

**A94**

