

# TO-92 Plastic-Encapsulate Transistors

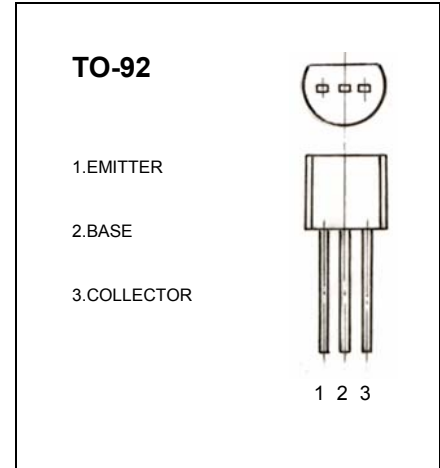
## MPSA 92 TRANSISTOR (PNP)

### FEATURES

High voltage

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

Symbol	Parameter	Value	Units
$V_{CB0}$	Collector-Base Voltage	-300	V
$V_{CE0}$	Collector-Emitter Voltage	-300	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current -Continuous	-500	mA
$P_C$	Collector Power Dissipation	625	mW
$T_j$	Junction Temperature	150	$^{\circ}\text{C}$
$T_{stg}$	Storage Temperature	-55-150	$^{\circ}\text{C}$
$R_{\theta JA}$	Thermal Resistance, junction to Ambient	200	$^{\circ}\text{C}/\text{mW}$
$R_{\theta JC}$	Thermal Resistance, junction to Case	83.3	$^{\circ}\text{C}/\text{mW}$



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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu\text{A}$ , $I_E=0$	-300			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-1\text{mA}$ , $I_B=0$	-300			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100\mu\text{A}$ , $I_C=0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=-200\text{V}$ , $I_E=0$			-0.25	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=-5\text{V}$ , $I_C=0$			-0.1	$\mu\text{A}$
DC current gain	$h_{FE(1)}$	$V_{CE}=-10\text{V}$ , $I_C=-1\text{mA}$	60			
	$h_{FE(2)}$	$V_{CE}=-10\text{V}$ , $I_C=-10\text{mA}$	80		250	
	$h_{FE(3)}$	$V_{CE}=-10\text{V}$ , $I_C=-80\text{mA}$	60			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-20\text{mA}$ , $I_B=-2\text{mA}$			-0.2	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-20\text{mA}$ , $I_B=-2\text{mA}$			-0.9	V
Transition frequency	$f_T$	$V_{CE}=-20\text{V}$ , $I_C=-10\text{mA}$ $f=30\text{MHz}$	50			MHz

### CLASSIFICATION OF $h_{FE(2)}$

Rank	A	B <sub>1</sub>	B <sub>2</sub>	C
Range	80-100	100-150	150-200	200-250

## Typical Characteristics

