

# PNP SILICON PLANAR HIGH VOLTAGE TRANSISTOR

## MPSA92

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### FEATURES

- \* High voltage

### APPLICATIONS

- \* Telephone dialler circuits



E-Line  
TO92 Compatible

### ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	$V_{CBO}$	-300	V
Collector-Emitter Voltage	$V_{CEO}$	-300	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Continuous Collector Current	$I_C$	-500	mA
Power Dissipation at $T_{amb} = 25^\circ\text{C}$	$P_{tot}$	680	mW
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +175	$^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^\circ\text{C}$ ).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-300			V	$I_C = -100\mu\text{A}$ , $I_E = 0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-300			V	$I_C = -1\text{mA}$ , $I_B = 0^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5			V	$I_E = -10\mu\text{A}$ , $I_C = 0$
Collector Cut-Off Current	$I_{CBO}$			-0.25	$\mu\text{A}$	$V_{CB} = -200\text{V}$ , $I_E = 0$
Emitter Cut-Off Current	$I_{EBO}$			-0.1	$\mu\text{A}$	$V_{EB} = -3\text{V}$ , $I_E = 0$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-0.5	V	$I_C = -20\text{mA}$ , $I_B = -2\text{mA}^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			-0.9	V	$I_C = -20\text{mA}$ , $I_B = -2\text{mA}^*$
Static Forward Current Transfer Ratio	$h_{FE}$	25 40 25				$I_C = -1\text{mA}$ , $V_{CE} = 10\text{V}^*$ $I_C = -10\text{mA}$ , $V_{CE} = 10\text{V}^*$ $I_C = -30\text{mA}$ , $V_{CE} = -10\text{V}^*$
Transition Frequency	$f_T$	50			MHz	$I_C = -10\text{mA}$ , $V_{CE} = -20\text{V}$ $f = 20\text{MHz}$
Output Capacitance	$C_{obo}$			6	pF	$V_{CB} = -20\text{V}$ , $f = 1\text{MHz}$

\*Measured under pulsed conditions. Pulse width=300 $\mu\text{s}$ . Duty cycle  $\leq 2\%$

## TYPICAL CHARACTERISTICS

