

# PNP SILICON PLANAR HIGH VOLTAGE TRANSISTOR

**MPSA94**

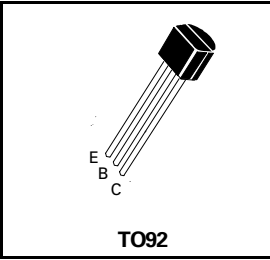
ISSUE 2 – MARCH 94

**FEATURES**

- \* High voltage

**APPLICATIONS**

- \* Telephone dialler circuit



**ABSOLUTE MAXIMUM RATINGS.**

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	$V_{CBO}$	-400	V
Collector-Emitter Voltage	$V_{CEO}$	-400	V
Emitter-Base Voltage	$V_{EBO}$	-6	V
Continuous Collector Current	$I_C$	-300	mA
Power Dissipation at $T_{amb}=25^{\circ}C$	$P_{tot}$	625	mW
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150	$^{\circ}C$

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-400			V	$I_C = -100\mu A, I_E = 0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-400			V	$I_C = -1mA, I_B = 0^*$
Collector-Emitter Breakdown Voltage	$V_{(BR)CES}$	-400			V	$I_C = -100\mu A, I_E = 0$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-6			V	$I_E = -100\mu A, I_C = 0$
Collector Cut-Off Current	$I_{CBO}$			-0.1	$\mu A$	$V_{CB} = -400V, I_E = 0$
Collector Cut-Off Current	$I_{CES}$			-500	nA	$V_{CE} = -400V$
Emitter Cut-Off Current	$I_{EBO}$			-0.1	$\mu A$	$V_{EB} = -4V, I_C = 0$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-0.4 -0.5 -0.75	V	$I_C = -1mA, I_B = -0.1mA^*$ $I_C = -10mA, I_B = -1mA^*$ $I_C = -50mA, I_B = -5mA^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			-0.75	V	$I_C = -10mA, I_B = -1mA^*$
Static Forward Current Transfer Ratio	$h_{FE}$	40 50 45 40		300		$I_C = -1mA, V_{CE} = -10V^*$ $I_C = -10mA, V_{CE} = -10V^*$ $I_C = -50mA, V_{CE} = -10V^*$ $I_C = -100mA, V_{CE} = -10V^*$

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