

**MPS3703****PNP EPITAXIAL SILICON TRANSISTOR**

T-29-21

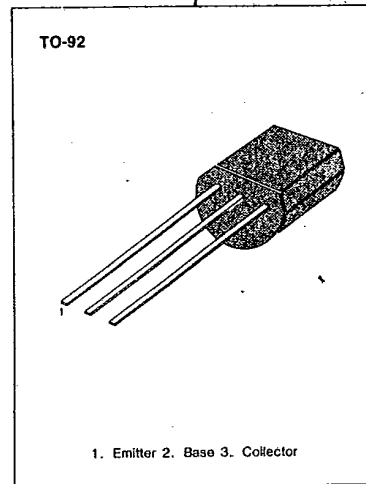
**AMPLIFIER TRANSISTOR**

- Collector-Emitter Voltage:  $V_{CE0} = 30V$
- Collector Dissipation:  $P_C (\text{max}) = 625mW$

**ABSOLUTE MAXIMUM RATINGS ( $T_a = 25^\circ C$ )**

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CB0}$	50	V
Collector-Emitter Voltage	$V_{CE0}$	30	V
Emitter-Base Voltage	$V_{EB0}$	5	V
Collector Current	$I_C$	600	mA
Collector Dissipation	$P_C$	625	mW
Junction Temperature	$T_J$	150	$^\circ C$
Storage Temperature	$T_{stg}$	-55 - 150	$^\circ C$

\* Refer to MPS3702 for graphs

**ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ C$ )**

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	$BV_{CB0}$	$I_C = 100\mu A, I_E = 0$	50			V
*Collector-Emitter Breakdown Voltage	$BV_{CE0}$	$I_C = 10mA, I_B = 0$	30			V
Emitter-Base Breakdown Voltage	$BV_{EB0}$	$I_E = 100\mu A, I_C = 0$	5			V
Emitter Cut-off Current	$I_{EBO}$	$V_{BE} = 3V, I_C = 0$			100	nA
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = 20V, I_E = 0$			100	nA
*DC Current Gain	$h_{FE}$	$I_C = 50mA, V_{CE} = 5V$	30		150	
*Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 50mA, I_B = 5mA$			0.25	V
Output Capacitance	$C_{ob}$	$V_{CB} = 10V, I_E = 0$			12	pF
Current Gain Bandwidth Product	$f_T$	$I_C = 50mA, V_{CE} = 5V$ $f = 1MHz$	100			MHz
*Base-Emitter On Voltage	$V_{BE(on)}$	$I_C = 50mA, V_{CE} = 5V$	0.6		1	V

\* Pulse Test: Pulse Width  $\leq 300\mu s$ , Duty Cycle  $\leq 2\%$