

**MPS4249**

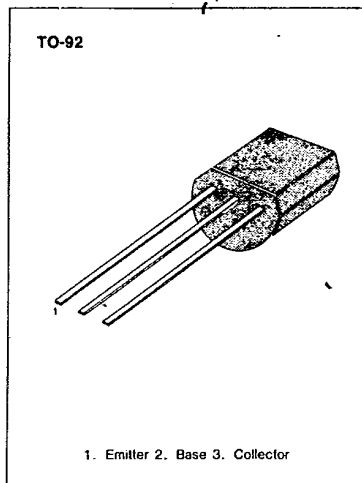
**PNP EPITAXIAL SILICON TRANSISTOR**

**AMPLIFIER TRANSISTOR**

- Collector-Emitter Voltage:  $V_{CE0} = 60V$
- Collector Dissipation:  $P_C (max) = 200mW$

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

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CBO}$	60	V
Collector-Emitter Voltage	$V_{CEO}$	60	V
Collector-Emitter Voltage	$V_{CES}$	60	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Dissipation	$P_C$	200	mW
Junction Temperature	$T_J$	150	$^\circ C$
Storage Temperature	$T_{stg}$	-55 ~ 150	$^\circ C$



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

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	$BV_{CBO}$	$I_C = 10\mu A, I_B = 0$	60			V
*Collector-Emitter Sustaining Voltage	$BV_{CEO(SUS)}$	$I_C = 5mA, I_B = 0$	60			V
Collector-Emitter Breakdown Voltage	$BV_{CES}$	$I_C = 10\mu A, V_{BE} = 0$	60			V
Emitter-Base Breakdown Voltage	$BV_{EBO}$	$I_E = 10\mu A, I_C = 0$	5			V
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = 40V, I_E = 0$			10	nA
Emitter Cut-off Current	$I_{EBO}$	$V_{BE} = 3V, I_C = 0$			20	nA
DC Current Gain	$h_{FE}$	$I_C = 100\mu A, V_{CE} = 5V$ $I_C = 1mA, V_{CE} = 5V$ $I_C = 10mA, V_{CE} = 5V$	100 100 100		300	
*Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 10mA, I_B = 0.5mA$			0.25	V
*Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 10mA, I_B = 0.5mA$			0.9	V
Output Capacitance	$C_{ob}$	$V_{CB} = 5V, I_E = 0$ $f = 1MHz$			6	pF
Noise Figure	NF	$I_C = 20\mu A, V_{CE} = 5V$ $R_S = 10K\Omega, f = 1KHz$ $I_C = 250\mu A, V_{CE} = 5V$ $R_S = 1K\Omega, f = 1KHz$			3 3	dB dB

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