

SAMSUNG SEMICONDUCTOR INC 14E D 7964142 0007318 0 17-29-15

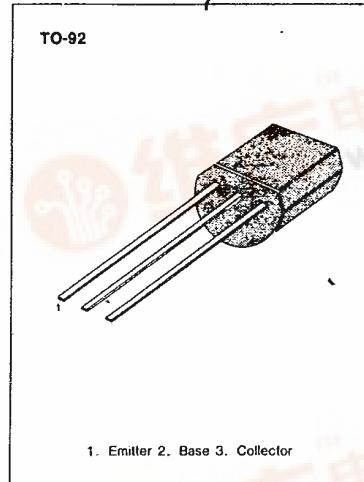
MPS4249 PNP EPITAXIAL SILICON TRANSISTOR

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}	$I_C = 100\mu A, V_{CE} = 5V$	100		300	
		$I_C = 1mA, V_{CE} = 5V$	100			
		$I_C = 10mA, V_{CE} = 5V$	100			
*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}	$V_{CB} = 5V, I_E = 0$			6	pF
		$f = 1MHz$				
Noise Figure	NF	$I_C = 20\mu A, V_{CE} = 5V$			3	dB
		$R_S = 10K\Omega, f = 1KHz$				
		$I_C = 250\mu A, V_{CE} = 5V$			3	dB
		$R_S = 1K\Omega, f = 1KHz$				

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

