

SAMSUNG SEMICONDUCTOR INC

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MPS4250A**PNP EPITAXIAL SILICON TRANSISTOR**

T-29-15

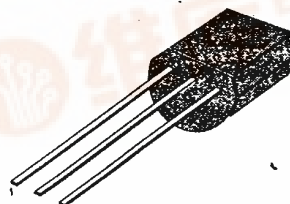
AMPLIFIER TRANSISTOR

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

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

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	60	V
Collector-Emitter Voltage	V_{CE0}	60	V
Collector-Emitter Voltage	V_{CES}	60	V
Emitter-Base Voltage	V_{EB0}	5	V
Collector Dissipation	P_C		mW
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature	T_{stg}	-55 ~ 150	$^\circ C$

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1. Emitter 2. Base 3. Collector

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

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CB0}	$I_C = 10\mu A, I_E = 0$	60			V
Collector-Emitter Sustaining Voltage	$BV_{CE0 (SUS)}$	$I_C = 5mA, I_B = 0$	60			V
Collector-Emitter Breakdown Voltage	BV_{CES}	$I_C = 5mA, V_{BE} = 0$	60			V
Emitter-Base Breakdown Voltage	BV_{EB0}	$I_E = 10\mu A, I_C = 0$	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}	$I_C = 100\mu A, V_{CE} = 5V$	250		700	
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	$I_C = 20\mu A, V_{CE} = 5V$ $R_S = 10K\Omega, f = 1KHz$			2	dB
		$I_C = 250\mu A, V_{CE} = 5V$ $R_S = 1K\Omega, f = 1KHz$			2	dB



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