

MPS6513**NPN EPITAXIAL SILICON TRANSISTOR****AMPLIFIER TRANSISTOR**

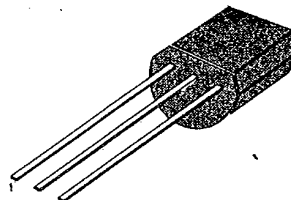
- Collector-Emitter Voltage: $V_{CE0} = 30V$
- Collector Dissipation: $P_C (\text{max}) = 625mW$

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

Characteristic	Symbol	Rating	Unit
Collector-Emitter Voltage	V_{CE0}	30	V
Collector-Base Voltage	V_{CBO}	40	V
Emitter-Base Voltage	V_{EBO}	4	V
Collector Current	I_C	100	mA
Collector Dissipation	P_C	625	mW
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature	T_{stg}	-55 ~ 150	$^\circ C$

• Refer to 2N3904 for graphs

TO-92



1. Emitter 2. Base 3. Collector

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

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Emitter Breakdown Voltage	BV_{CE0}	$I_C = 500\mu A, I_B = 0$	30			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E = 10\mu A, I_C = 0$	4			V
Collector Cut-off Current	I_{CBO}	$V_{CB} = 30V, I_E = 0$			50	nA
DC Current Gain	h_{FE}	$I_C = 2mA, V_{CE} = 10V$	90		180	
		$*I_C = 100mA, V_{CE} = 10V$	60			
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 50mA, I_B = 5mA$			0.5	V
Output Capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0$ $f = 100KHz$			3.5	pF

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

