

MPS6520**NPN EPITAXIAL SILICON TRANSISTOR**

T-29-21

AMPLIFIER TRANSISTOR

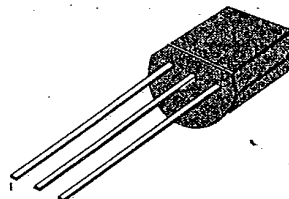
- Collector-Emitter Voltage: $V_{CE0} = 25V$
- Collector Dissipation: $P_c (\text{max}) = 625mW$

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

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V_{CEO}	25	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

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

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_c = 0.5mA, I_B = 0$	25			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
		$V_{CB} = 20V, I_E = 0$			50	nA
DC Current Gain	h_{FE}	$I_C = 100\mu A, V_{CE} = 10V$	100			
		$I_C = 2mA, V_{CE} = 10V$	200		400	
Collector-Emitter Saturation Voltage	$V_{CE} (\text{sat})$	$I_C = 50mA, I_B = 5mA$			0.5	V
Output Capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0$			3.5	pF
		$f = 100KHz$				
Noise Figure	NF	$I_C = 10\mu A, V_{CE} = 5V$			3	dB
		$R_S = 10K\Omega$				
		$f = 10Hz \text{ to } 10KHz$				

