

MPS6560

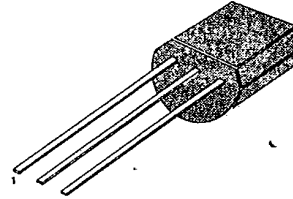
NPN EPITAXIAL SILICON TRANSISTOR

AUDIO TRANSISTOR

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

T-29-21

TO-92



1. Emitter 2. Base 3. Collector

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

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	25	V
Collector-Emitter Voltage	V_{CEO}	25	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	500	mA
Collector Dissipation	P_C	625	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-Emitter Breakdown Voltage	BV_{CEO}	$I_C = 10mA, I_B = 0$	25			V
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C = 100\mu A, I_E = 0$	25			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E = 100\mu A, I_C = 0$	5			V
Collector Cut-off Current	I_{CEO}	$V_{CE} = 25V, I_B = 0$			100	nA
Collector Cut-off Current	I_{CBO}	$V_{CB} = 20V, I_E = 0$			100	nA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = 4V, I_C = 0$			100	nA
*DC Current Gain	h_{FE}	$I_C = 10mA, V_{CE} = 1V$	35			
		$I_C = 100mA, V_{CE} = 1V$	50			
		$I_C = 500mA, V_{CE} = 1V$	50		200	
*Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 500mA, I_B = 50mA$			0.5	V
Current Gain Bandwidth Product	f_T	$I_C = 10mA, V_{CE} = 10V$ $f = 30MHz$	60			MHz
*Base-Emitter On Voltage	$V_{BE(on)}$	$I_C = 500mA, V_{CE} = 1V$			1.2	V
Output Capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0$ $f = 100KHz$			30	pF

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

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