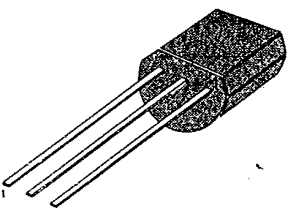
MPSA06 NPN EPITAXIAL SILICON TRANSISTOR

T-29-21

AMPLIFIER TRANSISTOR

- **Collector-Emitter Voltage: V_{CEO} = 80V**
- **Collector Dissipation: P_C (max) = 625mW**

TO-92



1. Emitter 2. Base 3. Collector

ABSOLUTE MAXIMUM RATINGS (T_a = 25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	80	V
Collector-Emitter Voltage	V_{CEO}	80	V
Emitter-Base Voltage	V_{EBO}	4	V
Collector Current	I_C	500	mA
Collector Dissipation	P_C	625	mW
Junction Temperature	T_j	150	°C
Storage Temperature	Tstg	−55 ~ 150	°C

* Refer to MPSA05 for graphs

ELECTRICAL CHARACTERISTICS (T_a = 25°C)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
* Collector-emitter Breakdown Voltage	BV_{CEO}	I_C = 1mA, I_B = 0	80			V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E = 100μA, I_C = 0	4			V
Collector Cut-off Current	I_{CEO}	V_{CE} = 60V, I_B = 0			100	nA
Collector Cut-off Current	I_{CBO}	V_{CB} = 80V, I_E = 0			100	nA
DC Current Gain	h_{FE}	I_C = 10mA, V_{CE} = 1V	50			
		I_C = 100mA, V_{CE} = 1V	50			
Collector-Emitter Saturation Voltage	V_{CE} (sat)	I_C = 100mA, I_B = 10mA			0.25	V
Current Gain Bandwidth Product	f_T	I_C = 10mA, V_{CE} = 2V f = 100MHz	100			MHz
Base-Emitter On Voltage	V_{BE} (on)	I_C = 100mA, V_{CE} = 1V			1.2	V

* Pulse Test: Pulse Width ≤ 300μs, Duty Cycle ≤ 2%