# 2SA1206 PNP Silicon Epitaxial Planar Transistor

for general purpose amplifier and high speed switching applications.

On special request, these transistors can be manufactured in different pin configurations.


1. Emitter 2. Collector 3. Base
TO-92 Plastic Package
Weight approx. 0.19g

## Features

- High frequency current gain
- High speed switching
- Small output capacitance
- Low collector saturation voltage

## Absolute Maximum Ratings ($T_a$ = 25 °C)

| Parameter | Symbol | Value | Unit |
|---|---|---|---|
| Collector Base Voltage | $-V_{CBO}$ | 15 | V |
| Collector Emitter Voltage | $-V_{CEO}$ | 15 | V |
| Emitter Base Voltage | $-V_{EBO}$ | 4.5 | V |
| Collector Current (D.C.) | $-I_C$ | 50 | mA |
| Collector Current (Pulse)* | $-I_C$ | 100 | mA |
| Power Dissipation | $P_{tot}$ | 600 | mW |
| Junction Temperature | $T_j$ | 150 | °C |
| Storage Temperature Range | $T_S$ | -55 to+150 | °C |

*PW≦2ms, Duty Cycle≦50%

## Characteristics at $T_{amb}$=25 °C

| Parameter | Symbol | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|
| DC Current Gain* | | | | | |
| at $-V_{CE}$=1V, $-I_C$=10mA | $h_{FE}$ | 50 | 80 | 150 | - |
| at $-V_{CE}$=1V, $-I_C$=1mA | $h_{FE}$ | 30 | 70 | - | - |
| Collector Cutoff Current | | | | | |
| at $-V_{CB}$=8V | $-I_{CBO}$ | - | - | 0.1 | μA |
| Emitter Cutoff Current | | | | | |
| at $-V_{EB}$=3V | $-I_{EBO}$ | - | - | 0.1 | μA |
| Collector Saturation Voltage* | | | | | |
| at $-I_C$=10mA, $-I_B$=1mA | $-V_{CE(sat)}$ | - | 0.09 | 0.2 | V |
| Base Saturation Voltage* | | | | | |
| at $-I_C$=10mA, $-I_B$=1mA | $-V_{BE(sat)}$ | - | 0.8 | 0.95 | V |
| Turn-on Time | | | | | |
| See test circuit | $t_{on}$ | - | 9 | 20 | ns |
| Storage Time | | | | | |
| See test circuit | $t_{stg}$ | - | 16 | 40 | ns |
| Turn-off Time | | | | | |
| See test circuit | $t_{off}$ | - | 19 | 40 | ns |
| Gain Bandwidth Product | | | | | |
| at $-V_{CE}$=10V, $I_E$=10mA, f=100MHz | $f_T$ | 800 | 1800 | - | MHz |
| Output Capacitance | | | | | |
| at $-V_{CB}$=5V, f=1MHz | $C_{OB}$ | - | 2 | 3 | pF |

*Pulsed PW≦350μs, Duty Cycle≦2%