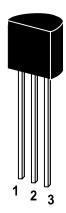
#### **PNP Silicon Epitaxial Planar Transistor**

for switching and AF amplifier applications.

The transistor is subdivided into two groups, O and Y, according to its DC current gain.

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

## Absolute Maximum Ratings (T<sub>a</sub> = 25 °C)

|                           | Symbol            | Value      | Unit |
|---------------------------|-------------------|------------|------|
| Collector Base Voltage    | -V <sub>CBO</sub> | 35         | V    |
| Collector Emitter Voltage | -V <sub>CEO</sub> | 30         | V    |
| Emitter Base Voltage      | -V <sub>EBO</sub> | 5          | V    |
| Collector Current         | -I <sub>C</sub>   | 500        | mA   |
| Base Current              | -I <sub>B</sub>   | 50         | mA   |
| Power Dissipation         | P <sub>tot</sub>  | 150        | mW   |
| Junction Temperature      | T <sub>j</sub>    | 125        | °C   |
| Storage Temperature Range | Ts                | -55 to+125 | °C   |







# ST 2SA1505

## Characteristics at T<sub>amb</sub>=25 °C

|  |   | Symbol            | Min. | Тур. | Max. | Unit |
|--|---|-------------------|------|------|------|------|
| DC Current Gain                                  |   |                   |      |      |      |      |
| at -V <sub>CE</sub> =1V, -I <sub>C</sub> =100mA  |   |                   |      |      |      |      |
| Current Gain Group                               | 0 | $h_{FE}$          | 70   | -    | 140  | -    |
|  | Υ | $h_{FE}$          | 120  | -    | 240  | -    |
| at - $V_{CE}$ =6 $V$ , - $I_{C}$ =400 $m$ A      | 0 | $h_{FE}$          | 25   | -    | -    | -    |
|  | Υ | $h_{FE}$          | 40   | -    | -    | -    |
| Collector Cutoff Current                         |   |                   |      |      |      |      |
| at -V <sub>CB</sub> =35V                         |   | -I <sub>CBO</sub> | -    | -    | 0.1  | μΑ   |
| Emitter Cutoff Current                           |   |                   |      |      |      |      |
| at -V <sub>EB</sub> =5V                          |   | -I <sub>EBO</sub> | -    | -    | 0.1  | μΑ   |
| Collector Saturation Voltage                     |   |                   |      |      |      |      |
| at -I <sub>C</sub> =100mA, -I <sub>B</sub> =10mA |   | $-V_{CE(sat)}$    | -    | 0.1  | 0.25 | V    |
| Base Emitter Voltage                             |   |                   |      |      |      |      |
| at - $I_C$ =100mA, - $V_{CE}$ =1 $V$             |   | $-V_{BE}$         | -    | 0.8  | 1    | V    |
| Gain Bandwidth Product                           |   |                   |      |      |      |      |
| at -V <sub>CE</sub> =6V, -I <sub>C</sub> =20mA   |   | $f_{T}$           | -    | 200  | -    | MHz  |
| Output Capacitance                               |   |                   |      |      |      |      |
| at -V <sub>CB</sub> =6V, f=1MHz                  |   | $C_OB$            | -    | 13   | -    | pF   |









# SEMTECH ELECTRONICS LTD.

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