## PNP Silicon Epitaxial Planar Transistor

for switching and general purpose 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.

$\begin{array}{ll}\text { 1. Emitter } & \text { 2. Collector } \\ \text { 3. Base }\end{array}$
TO-92 Plastic Package
Weight approx. 0.19 g

Absolute Maximum Ratings $\left(\mathrm{T}_{\mathrm{a}}=25^{\circ} \mathrm{C}\right)$

|  | Symbol | Value | Unit |
| :--- | :---: | :---: | :---: |
| Collector Base Voltage | $-\mathrm{V}_{\text {CBO }}$ | 35 | V |
| Collector Emitter Voltage | $-\mathrm{V}_{\text {CEO }}$ | 30 | V |
| Emitter Base Voltage | $-\mathrm{V}_{\text {EBO }}$ | 5 | V |
| Collector Current | $-\mathrm{I}_{\mathrm{C}}$ | 500 | mA |
| Base Current | $-\mathrm{I}_{\mathrm{B}}$ | 100 | mA |
| Power Dissipation | $\mathrm{P}_{\text {tot }}$ | 500 | mW |
| Junction Temperature | $\mathrm{T}_{\mathrm{j}}$ | 150 | ${ }^{\circ} \mathrm{C}$ |
| Storage Temperature Range | $\mathrm{T}_{\mathrm{S}}$ | -55 to +150 | ${ }^{\circ} \mathrm{C}$ |

Characteristics at $\mathrm{T}_{\mathrm{amb}}=25^{\circ} \mathrm{C}$

|  | Symbol | Min. | Typ. | Max. | Unit |
| :---: | :---: | :---: | :---: | :---: | :---: |
| DC Current Gain <br> at $-\mathrm{V}_{\mathrm{CE}}=1 \mathrm{~V},-\mathrm{I}_{\mathrm{C}}=100 \mathrm{~mA}$ <br> Current Gain Group <br> at $-\mathrm{V}_{\mathrm{CE}}=6 \mathrm{~V},-\mathrm{I}_{\mathrm{C}}=400 \mathrm{~mA}$ | $\begin{aligned} & \mathrm{h}_{\mathrm{FE}} \\ & \mathrm{~h}_{\mathrm{FE}} \\ & \mathrm{~h}_{\mathrm{FE}} \\ & \mathrm{~h}_{\mathrm{FE}} \end{aligned}$ | $\begin{gathered} 70 \\ 120 \\ 25 \\ 40 \end{gathered}$ | - <br> - <br> - | $\begin{aligned} & 140 \\ & 240 \end{aligned}$ | - - - - |
| Collector Cutoff Current at $-\mathrm{V}_{\mathrm{CB}}=35 \mathrm{~V}$ | $-_{\text {- }}$ cbo | - | - | 0.1 | $\mu \mathrm{A}$ |
| Emitter Cutoff Current at $-V_{E B}=5 \mathrm{~V}$ | $-I_{\text {Ebo }}$ | - | - | 0.1 | $\mu \mathrm{A}$ |
| Collector Emitter Saturation Voltage at $-\mathrm{I}_{\mathrm{C}}=100 \mathrm{~mA},-\mathrm{I}_{\mathrm{B}}=10 \mathrm{~mA}$ | $-\mathrm{V}_{\text {CEsat }}$ | - | 0.1 | 0.25 | V |
| Base Emitter Voltage at $-\mathrm{V}_{\mathrm{CE}}=1 \mathrm{~V},-\mathrm{I}_{\mathrm{C}}=100 \mathrm{~mA}$ | $-V_{\text {be }}$ | - | 0.8 | 1.0 | V |
| Transition Frequency at $-\mathrm{V}_{\mathrm{CE}}=6 \mathrm{~V},-\mathrm{I}_{\mathrm{C}}=20 \mathrm{~mA}$ | $\mathrm{f}_{\mathrm{T}}$ | - | 200 | - | MHz |
| Collector Output Capacitance at $-\mathrm{V}_{\mathrm{CB}}=6 \mathrm{~V}, \mathrm{f}=1 \mathrm{MHz}$ | $\mathrm{C}_{\text {ов }}$ | - | 13 | - | pF |

