

# PNP Silicon Epitaxial Planar Transistor

# S8550

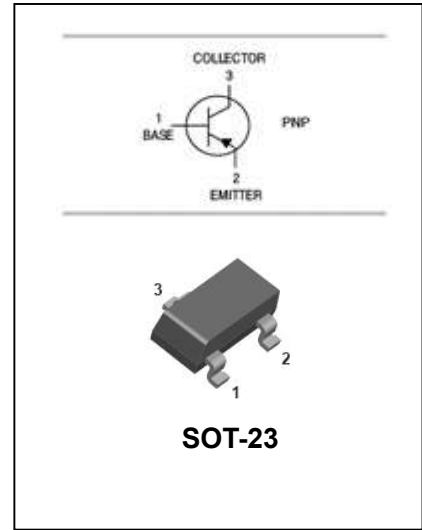
## FEATURES

- High Collector Current.( $I_C = -500\text{mA}$ ).
- Complementary To S8050.
- Excellent  $H_{FE}$  Linearity.



## APPLICATIONS

- High Collector Current.



## ORDERING INFORMATION

| Type No. | Marking | Package Code |
|----------|---------|--------------|
| S8550□   | 2TY     | SOT-23       |

□: none is for Lead Free package;

“G” is for Halogen Free package.

## MAXIMUM RATING @ $T_a=25^\circ\text{C}$ unless otherwise specified

| Symbol         | Parameter                        | Value       | Units            |
|----------------|----------------------------------|-------------|------------------|
| $V_{CBO}$      | Collector-Base Voltage           | -40         | V                |
| $V_{CEO}$      | Collector-Emitter Voltage        | -25         | V                |
| $V_{EBO}$      | Emitter-Base Voltage             | -5          | V                |
| $I_C$          | Collector Current -Continuous    | -500        | mA               |
| $P_C$          | Collector Dissipation            | 300         | mW               |
| $T_j, T_{stg}$ | Junction and Storage Temperature | -55 to +150 | $^\circ\text{C}$ |

PNP Silicon Epitaxial Planar Transistor

**S8550**

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

| Parameter                            | Symbol        | Test conditions                      | MIN | MAX  | UNIT    |
|--------------------------------------|---------------|--------------------------------------|-----|------|---------|
| Collector-base breakdown voltage     | $V_{(BR)CBO}$ | $I_C=-100\mu A, I_E=0$               | -40 |      | V       |
| Collector-emitter breakdown voltage  | $V_{(BR)CEO}$ | $I_C=-1mA, I_B=0$                    | -25 |      | V       |
| Emitter-base breakdown voltage       | $V_{(BR)EBO}$ | $I_E=-100\mu A, I_C=0$               | -5  |      | V       |
| Collector cut-off current            | $I_{CBO}$     | $V_{CB}=-40V, I_E=0$                 |     | -0.1 | $\mu A$ |
| Collector cut-off current            | $I_{CEO}$     | $V_{CE}=-20V, I_B=0$                 |     | -0.1 | $\mu A$ |
| Emitter cut-off current              | $I_{EBO}$     | $V_{EB}=-3V, I_C=0$                  |     | -0.1 | $\mu A$ |
| DC current gain                      | $h_{FE}$      | $V_{CE}=-1V, I_C=-50mA$              | 120 | 350  |         |
|                                      |               | $V_{CE}=-1V, I_C=-500mA$             | 50  |      |         |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=-500mA, I_B=-50mA$              |     | -0.6 | V       |
| Base-emitter saturation voltage      | $V_{BE(sat)}$ | $I_C=-500mA, I_B=-50mA$              |     | -1.2 | V       |
| Transition frequency                 | $f_T$         | $V_{CE}=-6V, I_C=-20mA$<br>$f=30MHz$ | 150 |      | MHz     |

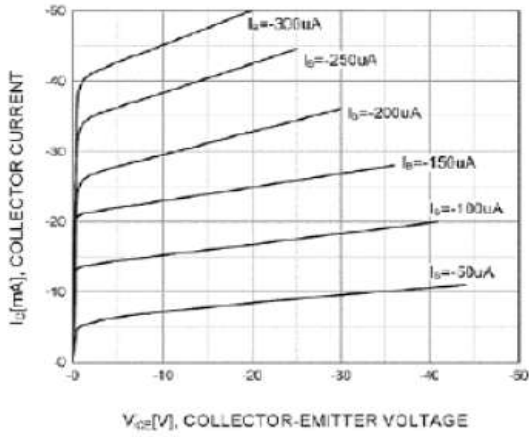
CLASSIFICATION OF  $h_{FE(1)}$

| Rank  | L       | H       |
|-------|---------|---------|
| Range | 120-200 | 200-350 |

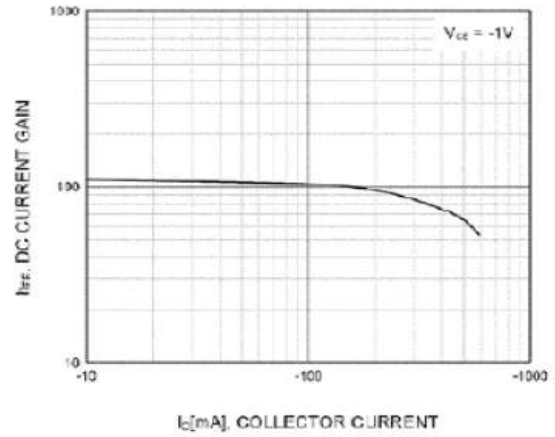
PNP Silicon Epitaxial Planar Transistor

**S8550**

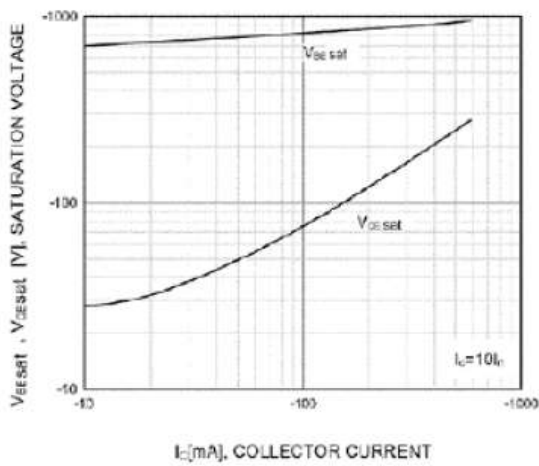
TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified



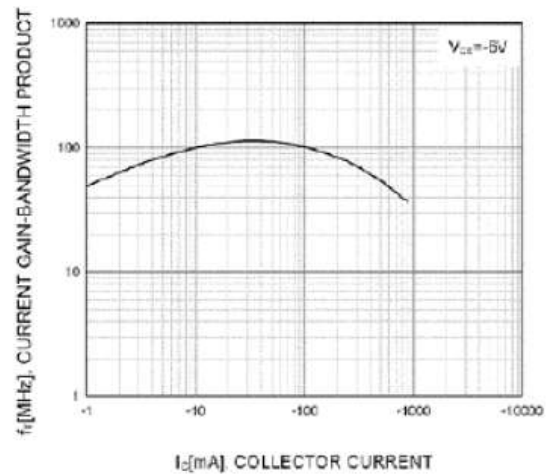
Static Characteristic



DC current Gain



Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage



Current Gain Bandwidth Product

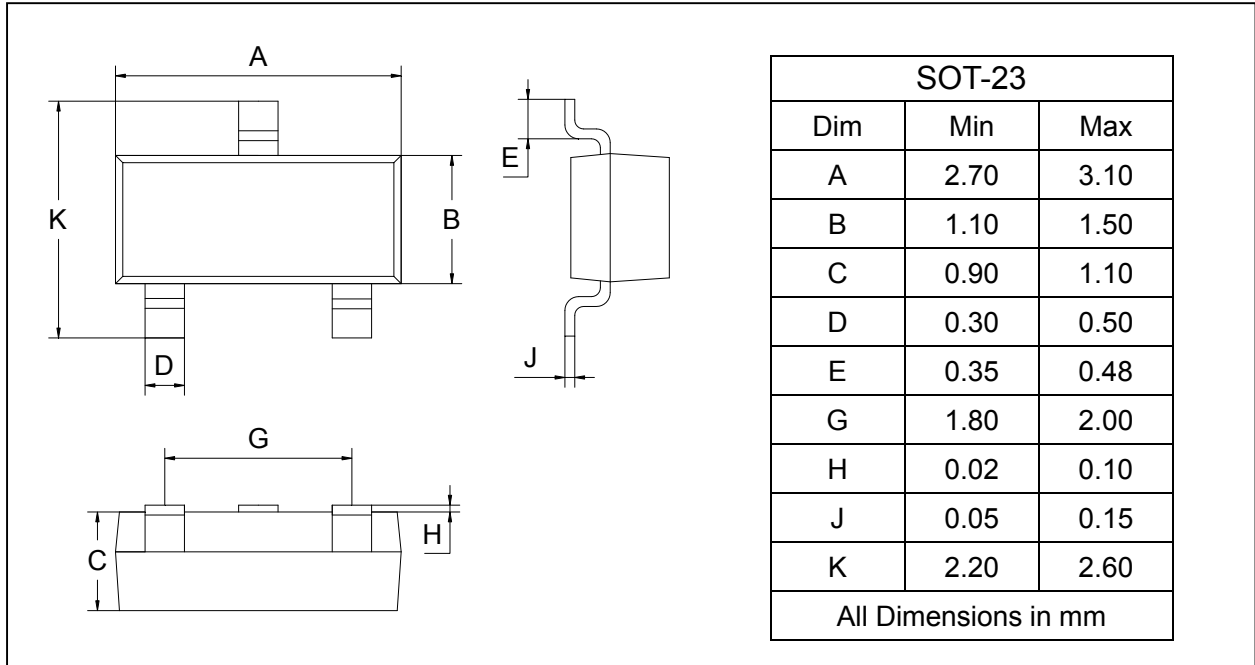
# PNP Silicon Epitaxial Planar Transistor

**S8550**

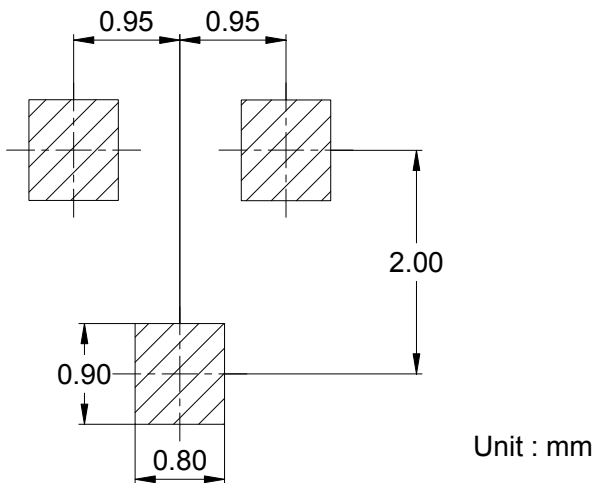
## PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



## SOLDERING FOOTPRINT



## PACKAGE INFORMATION

| Device | Package | Shipping       |
|--------|---------|----------------|
| S8550  | SOT-23  | 3000/Tape&Reel |