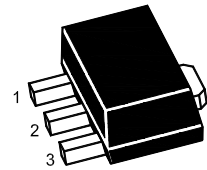


# S8550

## PNP Silicon Epitaxial Planar Transistor

for switching and amplifier applications.  
Especially suitable for AF-driver stages  
and low power output stages.



1.Base 2.Collector 3.Emitter  
SOT-89 Plastic Package

### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

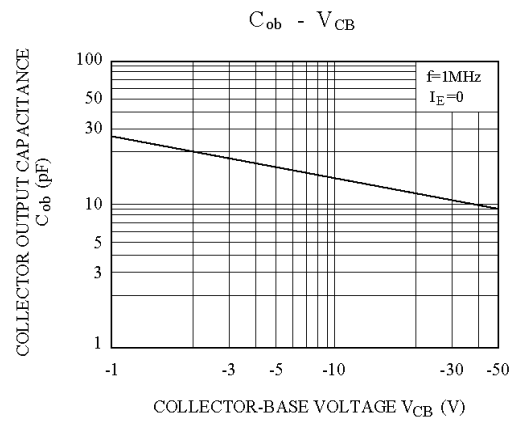
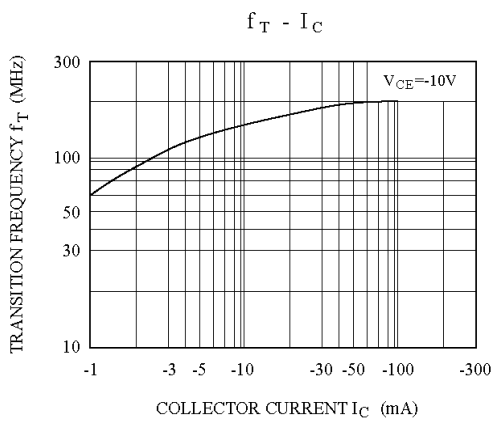
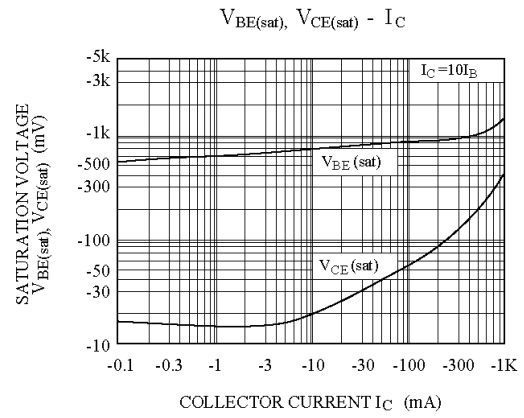
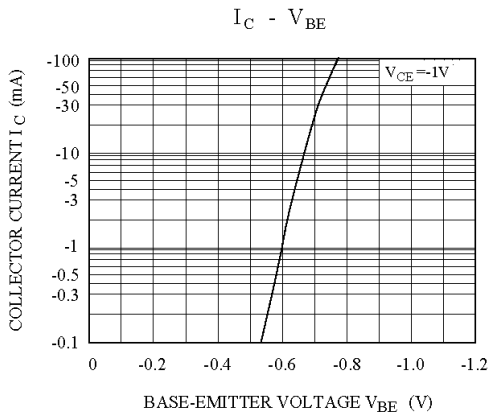
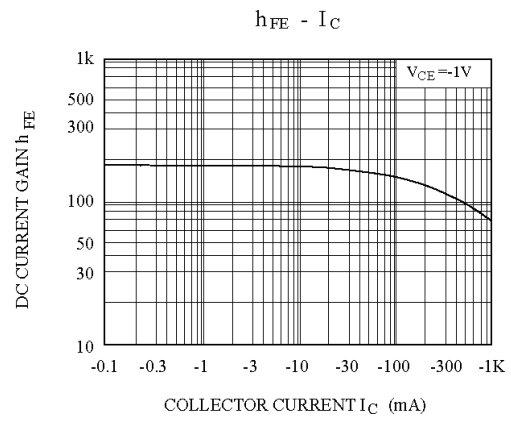
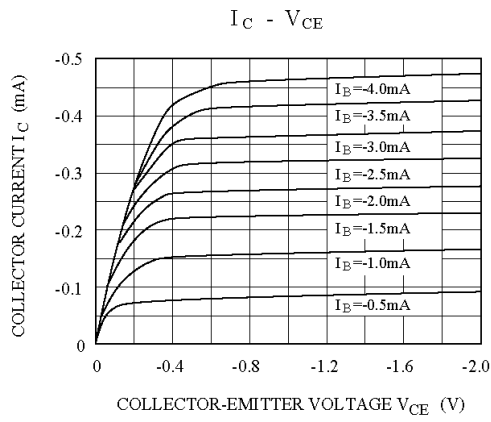
| Parameter                 | Symbol     | Value         | Unit             |
|---------------------------|------------|---------------|------------------|
| Collector Base Voltage    | $-V_{CBO}$ | 40            | V                |
| Collector Emitter Voltage | $-V_{CEO}$ | 25            | V                |
| Emitter Base Voltage      | $-V_{EBO}$ | 6             | V                |
| Collector Current         | $-I_C$     | 1.5           | A                |
| Power Dissipation         | $P_{tot}$  | 625           | mW               |
| Junction Temperature      | $T_j$      | 150           | $^\circ\text{C}$ |
| Storage Temperature Range | $T_{Stg}$  | - 55 to + 150 | $^\circ\text{C}$ |

### Characteristics at $T_a = 25\text{ }^\circ\text{C}$

| Parameter   | Symbol                    | Min.     | Typ. | Max. | Unit |
|---|---------------------------|----------|------|------|------|
| DC Current Gain<br>at $-V_{CE} = 1\text{ V}$ , $-I_C = 5\text{ mA}$<br>at $-V_{CE} = 1\text{ V}$ , $-I_C = 100\text{ mA}$<br>at $-V_{CE} = 1\text{ V}$ , $-I_C = 800\text{ mA}$ | Current Gain Group C<br>D | $h_{FE}$ | 45   | -    | -    |
|   |                           | $h_{FE}$ | 120  | -    | 200  |
|   |                           | $h_{FE}$ | 160  | -    | 300  |
|   |                           | $h_{FE}$ | 40   | -    | -    |
| Collector Base Cutoff Current<br>at $-V_{CB} = 35\text{ V}$   | $-I_{CBO}$                | -        | -    | 100  | nA   |
| Emitter Base Cutoff Current<br>at $-V_{BE} = 6\text{ V}$  | $-I_{EBO}$                | -        | -    | 100  | nA   |
| Collector Base Breakdown Voltage<br>at $-I_C = 100\text{ }\mu\text{A}$  | $-V_{(BR)CBO}$            | 40       | -    | -    | V    |
| Collector Emitter Breakdown Voltage<br>at $-I_C = 2\text{ mA}$  | $-V_{(BR)CEO}$            | 25       | -    | -    | V    |
| Emitter Base Breakdown Voltage<br>at $-I_E = 100\text{ }\mu\text{A}$  | $-V_{(BR)EBO}$            | 6        | -    | -    | V    |
| Collector Emitter Saturation Voltage<br>at $-I_C = 800\text{ mA}$ , $-I_B = 80\text{ mA}$   | $-V_{CE(sat)}$            | -        | -    | 0.5  | V    |
| Base Emitter Saturation Voltage<br>at $-I_C = 800\text{ mA}$ , $-I_B = 80\text{ mA}$  | $-V_{BE(sat)}$            | -        | -    | 1.2  | V    |
| Base Emitter Voltage<br>at $-I_C = 10\text{ mA}$ , $-V_{CE} = 1\text{ V}$   | $-V_{BE}$                 | -        | -    | 1    | V    |
| Gain Bandwidth Product<br>at $-V_{CE} = 10\text{ V}$ , $-I_C = 50\text{ mA}$  | $f_T$                     | 120      | -    | -    | MHz  |
| Collector Base Capacitance<br>at $-V_{CB} = 10\text{ V}$ , $f = 1\text{ MHz}$   | $C_{ob}$                  | -        | 15   | -    | pF   |

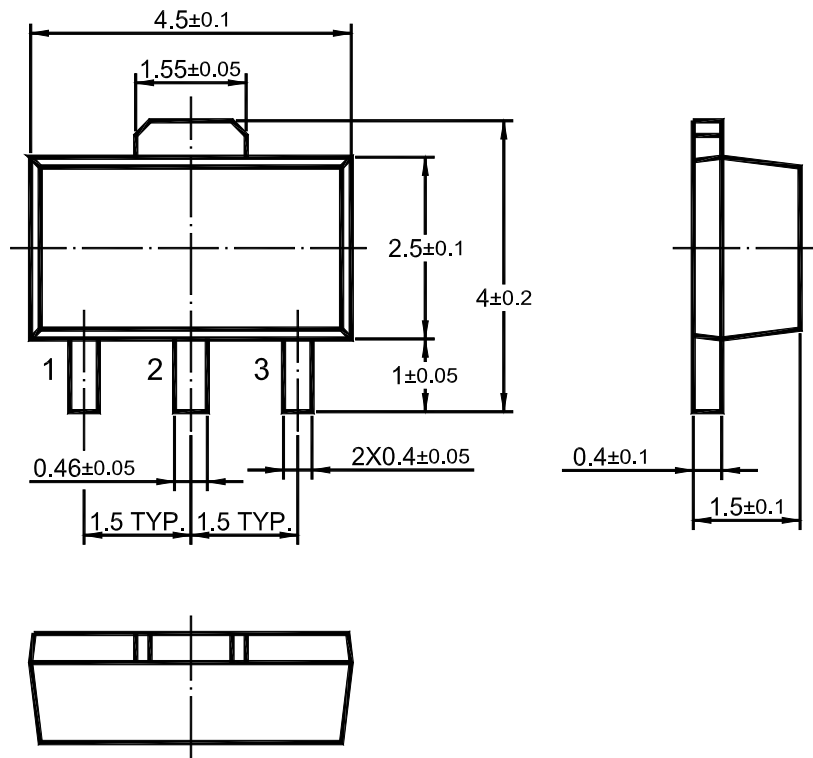
# S8550

## Typical Characteristics



# S8550

## SOT-89 PACKAGE OUTLINE



Dimensions in mm