



# HMBT8550

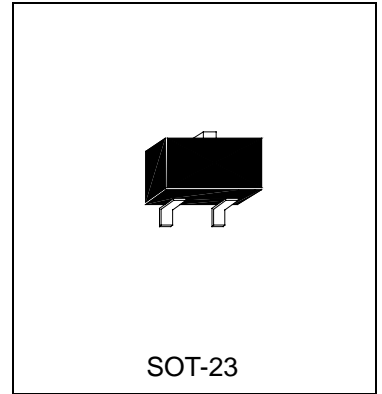
PNP EPITAXIAL TRANSISTOR

## Description

The HMBT8550 is designed for general purpose amplifier applications.

## Features

- High DC Current:  $hFE=150-400$  at  $I_C=150mA$
- Complementary to HMBT8050



## Absolute Maximum Ratings

- Maximum Temperatures  
Storage Temperature ..... -55 ~ +150 °C  
Junction Temperature..... +150 °C Maximum
- Maximum Power Dissipation  
Total Power Dissipation ( $T_a=25^\circ C$ ) ..... 225 mW
- Maximum Voltages and Currents ( $T_a=25^\circ C$ )  
VCBO Collector to Base Voltage ..... -25 V  
VCEO Collector to Emitter Voltage..... -20 V  
VEBO Emitter to Base Voltage..... -5 V  
IC Collector Current ..... -700 mA

## Characteristics ( $T_a=25^\circ C$ )

| Symbol    | Min. | Typ. | Max. | Unit    | Test Conditions                    |
|-----------|------|------|------|---------|------------------------------------|
| BVCBO     | -25  | -    | -    | V       | $I_C=-10\mu A$                     |
| BVCEO     | -20  | -    | -    | V       | $I_C=-1mA$                         |
| BVEBO     | -5   | -    | -    | V       | $I_E=-10\mu A$                     |
| ICBO      | -    | -    | -1   | $\mu A$ | $V_{CB}=-20V$                      |
| IEBO      | -    | -    | -100 | nA      | $V_{EB}=-6V$                       |
| *VCE(sat) | -    | -    | -500 | mV      | $I_C=-500mA, I_B=-50mA$            |
| VBE(on)   | -    | -    | -1   | V       | $V_{CE}=-1V, I_C=-150mA$           |
| *hFE      | 100  | -    | 500  |         | $V_{CE}=-1V, I_C=-150mA$           |
| ft        | 150  | -    | -    | MHz     | $V_{CE}=-10V, I_C=-20mA, f=100MHz$ |
| Cob       | -    | -    | 10   | pF      | $V_{CB}=-10V, f=1MHz$              |

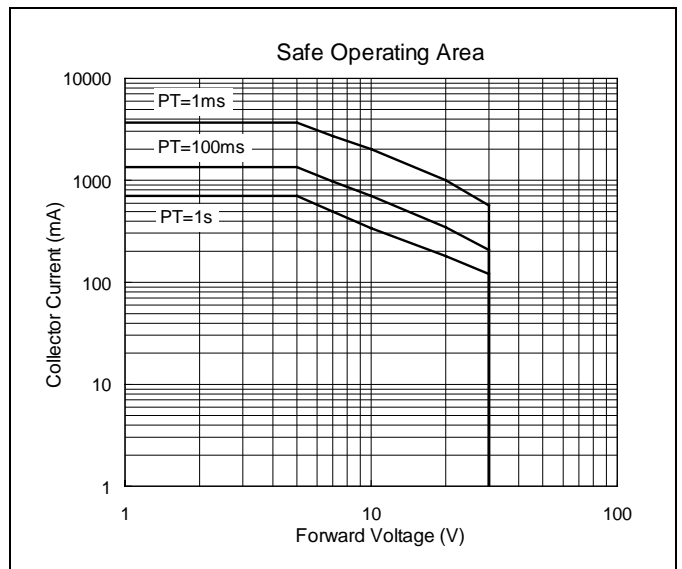
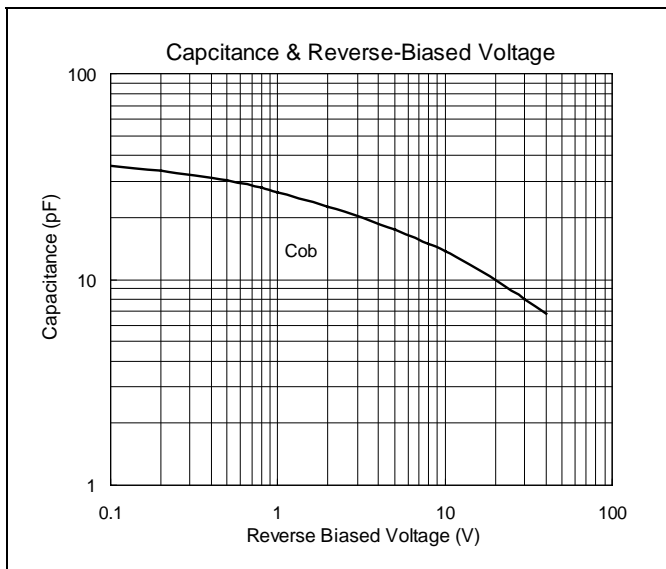
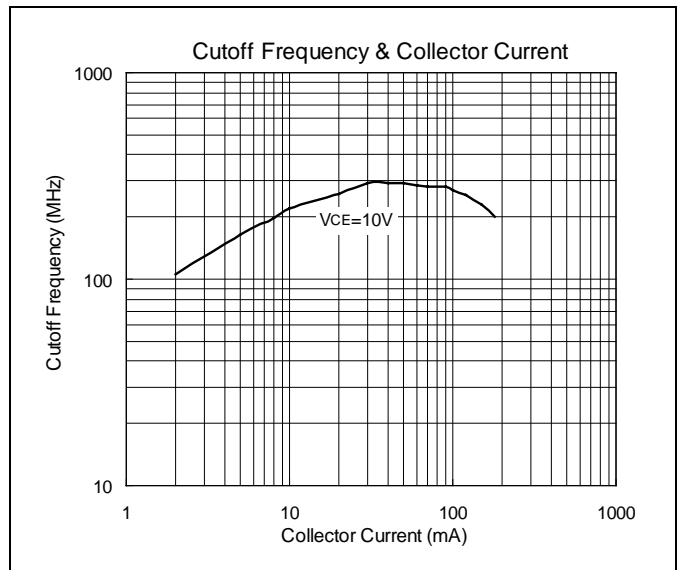
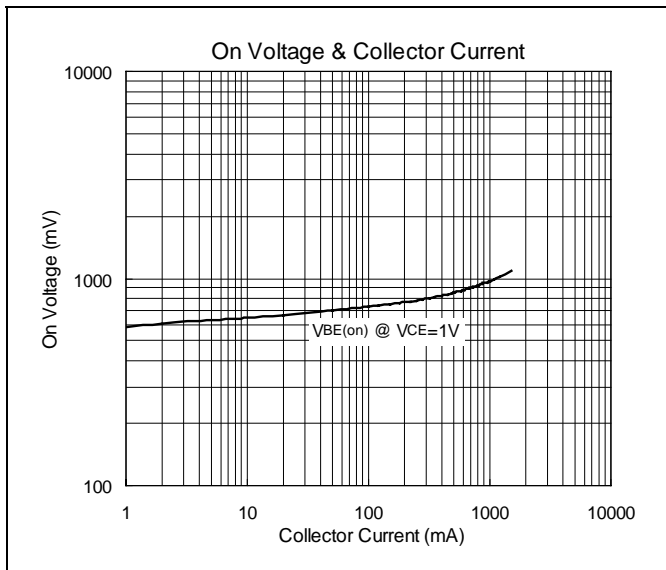
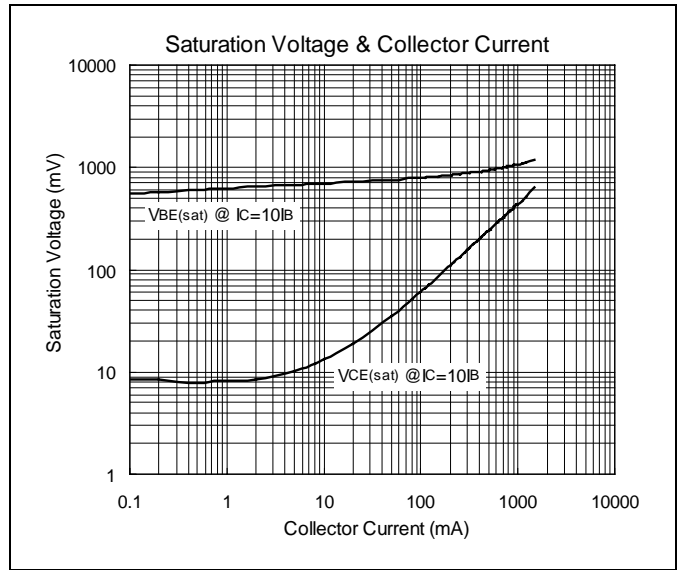
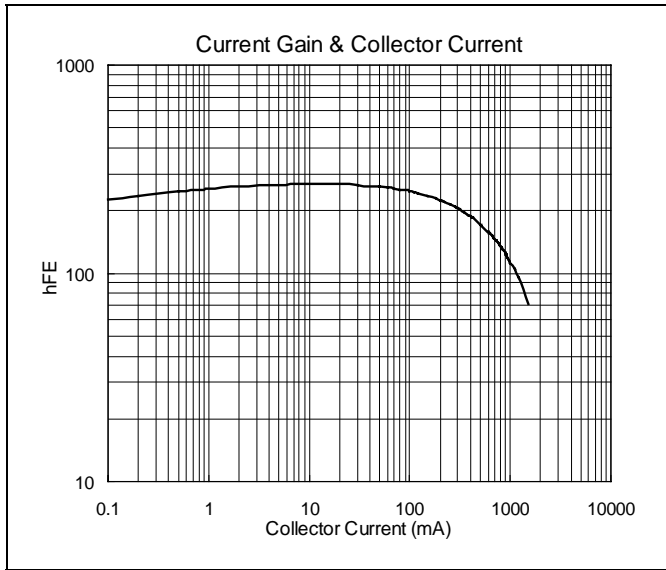
\*Pulse Test: Pulse Width  $\leq 380\mu s$ , Duty Cycle  $\leq 2\%$

## Classification Of hFE

| Rank  | B9C     | B9D     | B9E     |
|-------|---------|---------|---------|
| Range | 100-200 | 150-300 | 250-500 |

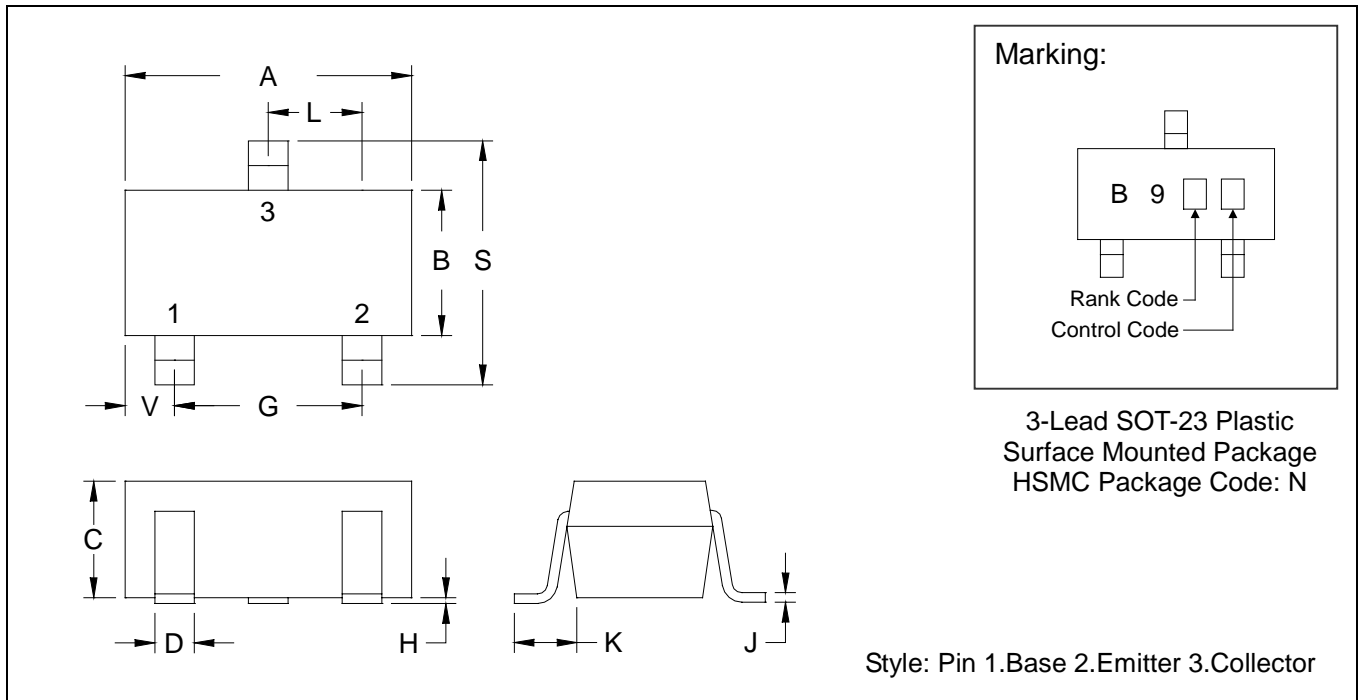


### Characteristics Curve





### SOT-23 Dimension



\*: Typical

| DIM | Inches |        | Millimeters |      | DIM | Inches |        | Millimeters |       |
|-----|--------|--------|-------------|------|-----|--------|--------|-------------|-------|
|     | Min.   | Max.   | Min.        | Max. |     | Min.   | Max.   | Min.        | Max.  |
| A   | 0.1102 | 0.1204 | 2.80        | 3.04 | J   | 0.0034 | 0.0070 | 0.085       | 0.177 |
| B   | 0.0472 | 0.0630 | 1.20        | 1.60 | K   | 0.0128 | 0.0266 | 0.32        | 0.67  |
| C   | 0.0335 | 0.0512 | 0.89        | 1.30 | L   | 0.0335 | 0.0453 | 0.85        | 1.15  |
| D   | 0.0118 | 0.0197 | 0.30        | 0.50 | S   | 0.0830 | 0.1083 | 2.10        | 2.75  |
| G   | 0.0669 | 0.0910 | 1.70        | 2.30 | V   | 0.0098 | 0.0256 | 0.25        | 0.65  |
| H   | 0.0005 | 0.0040 | 0.013       | 0.10 |     |        |        |             |       |

- Notes:**
- 1.Dimension and tolerance based on our Spec. dated Sep. 07,1997.
  - 2.Controlling dimension: millimeters.
  - 3.Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.
  - 4.If there is any question with packing specification or packing method, please contact your local HSMC sales office.

**Material:**

- Lead: 42 Alloy; solder plating
- Mold Compound: Epoxy resin family, flammability solid burning class: UL94V-0

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