

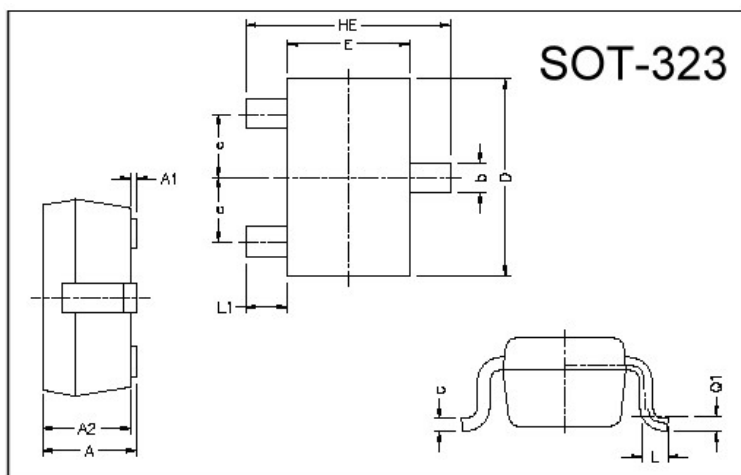
## GSMBT9012

## PNP EPITAXIAL TRANSISTOR

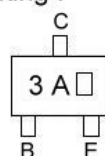
## Description

The GSMBT9012 is designed for use in 1W output amplifier of portable radios in class B push-pull operation.

## Package Dimensions



Marking :



□:hFE Rank Code

| REF. | Millimeter |      | REF. | Millimeter |      |
|------|------------|------|------|------------|------|
|      | Min.       | Max. |      | Min.       | Max. |
| A    | 0.80       | 1.10 | L1   | 0.42 REF.  |      |
| A1   | 0          | 0.10 | L    | 0.15       | 0.35 |
| A2   | 0.80       | 1.00 | b    | 0.25       | 0.40 |
| D    | 1.80       | 2.20 | c    | 0.10       | 0.25 |
| E    | 1.15       | 1.35 | e    | 0.65 REF.  |      |
| HE   | 1.80       | 2.40 | Q1   | 0.15 BSC.  |      |

## Absolute Maximum Ratings at Ta = 25°C

| Parameter                    | Symbol | Ratings    | Unit |
|------------------------------|--------|------------|------|
| Junction Temperature         | Tj     | +150       | °C   |
| Storage Temperature          | Tstg   | -55 ~ +150 | °C   |
| Collector to Base Voltage    | VCBO   | -40        | V    |
| Collector to Emitter Voltage | VCEO   | -20        | V    |
| Emitter to Base Voltage      | VEBO   | -5         | V    |
| Collector Current            | IC     | -500       | mA   |
| Total Power Dissipation      | PD     | 225        | mW   |

## Characteristics at Ta = 25°C

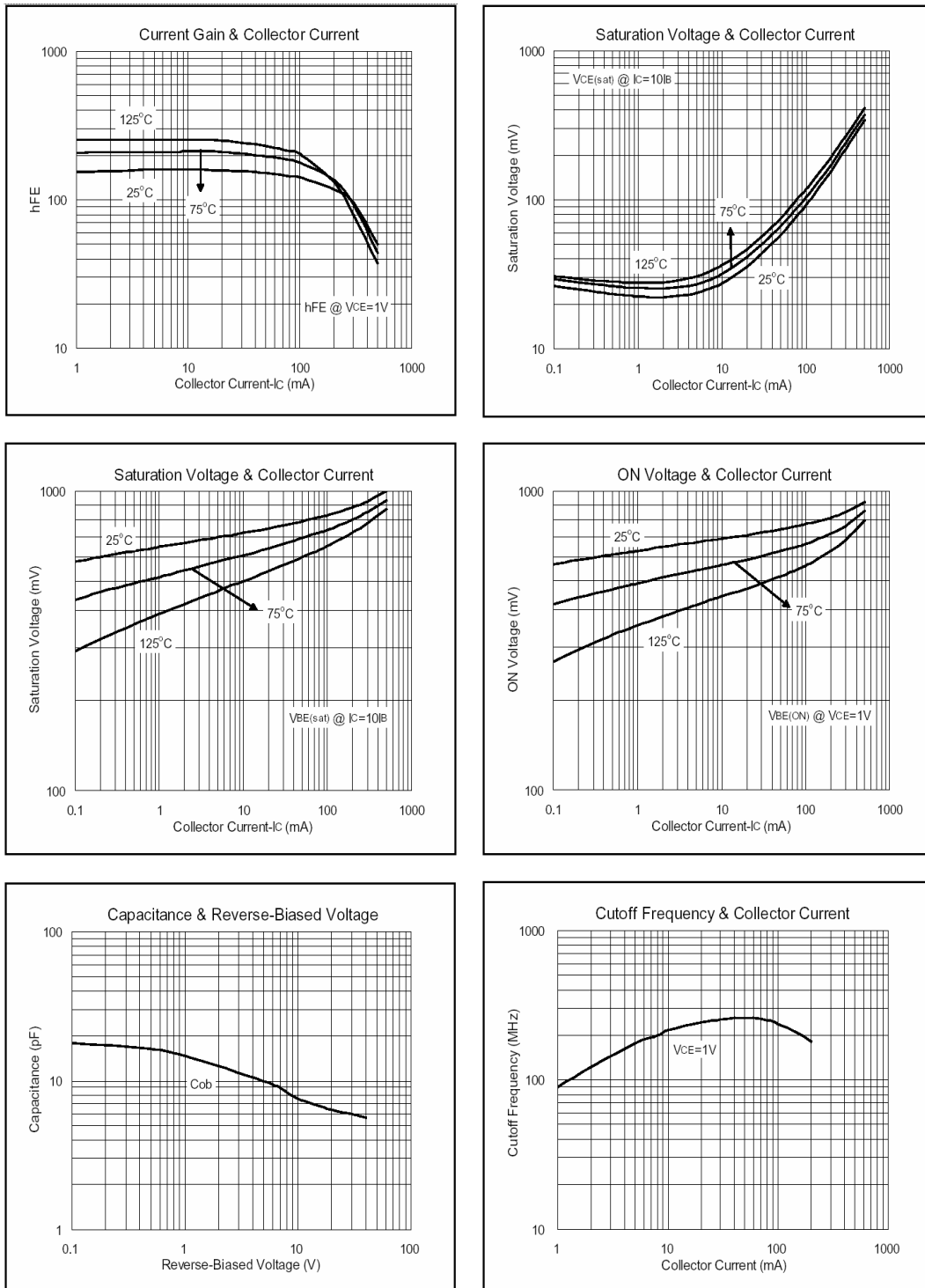
| Symbol    | Min. | Typ. | Max. | Unit | Test Conditions             |
|-----------|------|------|------|------|-----------------------------|
| BVCBO     | -40  | -    | -    | V    | IC=-100uA, IE=0             |
| BVCEO     | -20  | -    | -    | V    | IC=-1mA, IB=0               |
| BVEBO     | -5   | -    | -    | V    | IE=-100uA, IC=0             |
| ICBO      | -    | -    | -100 | nA   | VCB=-25V, IE=0              |
| IEBO      | -    | -    | -100 | nA   | VEB=-3V, IC=0               |
| *VCE(sat) | -    | -    | -0.6 | V    | IC=-500mA, IB=-50mA         |
| *VBE(sat) | -    | -    | -1.2 | V    | IC=-500mA, IB=-50mA         |
| *VBE(on)  | -    | -    | -0.9 | V    | VCE=-1V, IC=-10mA           |
| *hFE1     | 112  | 180  | 300  |      | VCE=-1V, IC=-50mA           |
| *hFE2     | 40   | -    | -    |      | VCE=-1V, IC=-500mA          |
| fT        | 100  | -    | -    | MHz  | VCE=-1V, IC=-10mA, f=100MHz |
| Cob       | -    | -    | 8    | pF   | VCB=-10V, f=1MHz            |

\* Pulse Test: Pulse Width ≤ 380μs, Duty Cycle ≤ 2%

## Classification Of hFE1

| Rank  | 3AG       | 3AH       | 3AL       |
|-------|-----------|-----------|-----------|
| Range | 112 - 166 | 144 - 202 | 176 - 300 |

## Characteristics Curve



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