

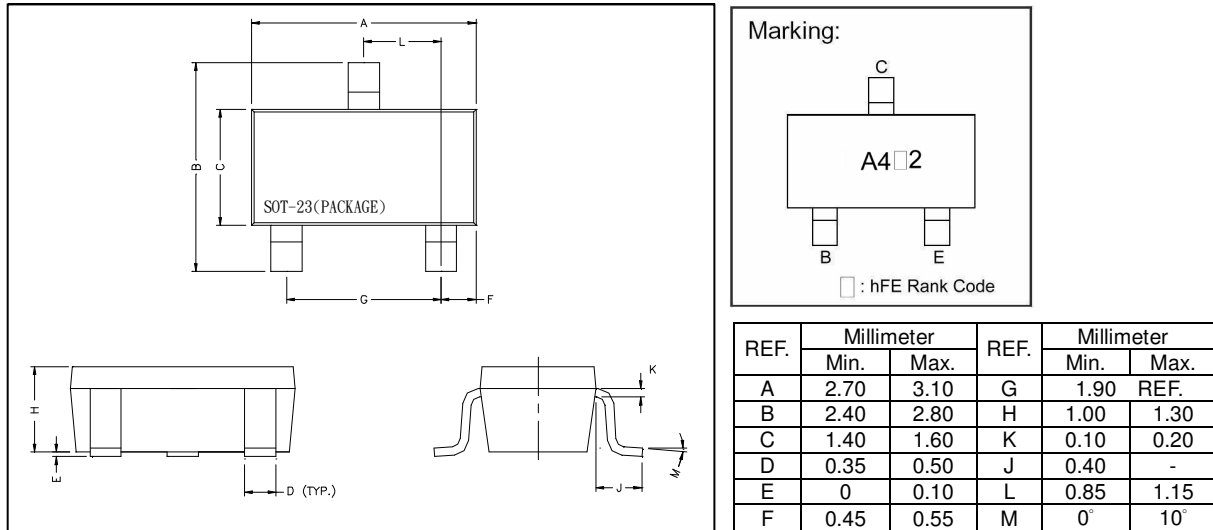
## GMBT9012

### PNP EPITAXIAL TRANSISTOR

#### Description

The GMBT9012 is designed for use in 1W output amplifier of portable radios in class B push-pull operation.

#### Package Dimensions



#### Absolute Maximum Ratings at Ta = 25°C

| Parameter                    | Symbol           | Ratings    | Unit |
|------------------------------|------------------|------------|------|
| Junction Temperature         | T <sub>j</sub>   | +150       | °C   |
| Storage Temperature          | T <sub>stg</sub> | -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            | I <sub>C</sub>   | -500       | mA   |
| Total Power Dissipation      | PD               | 225        | mW   |

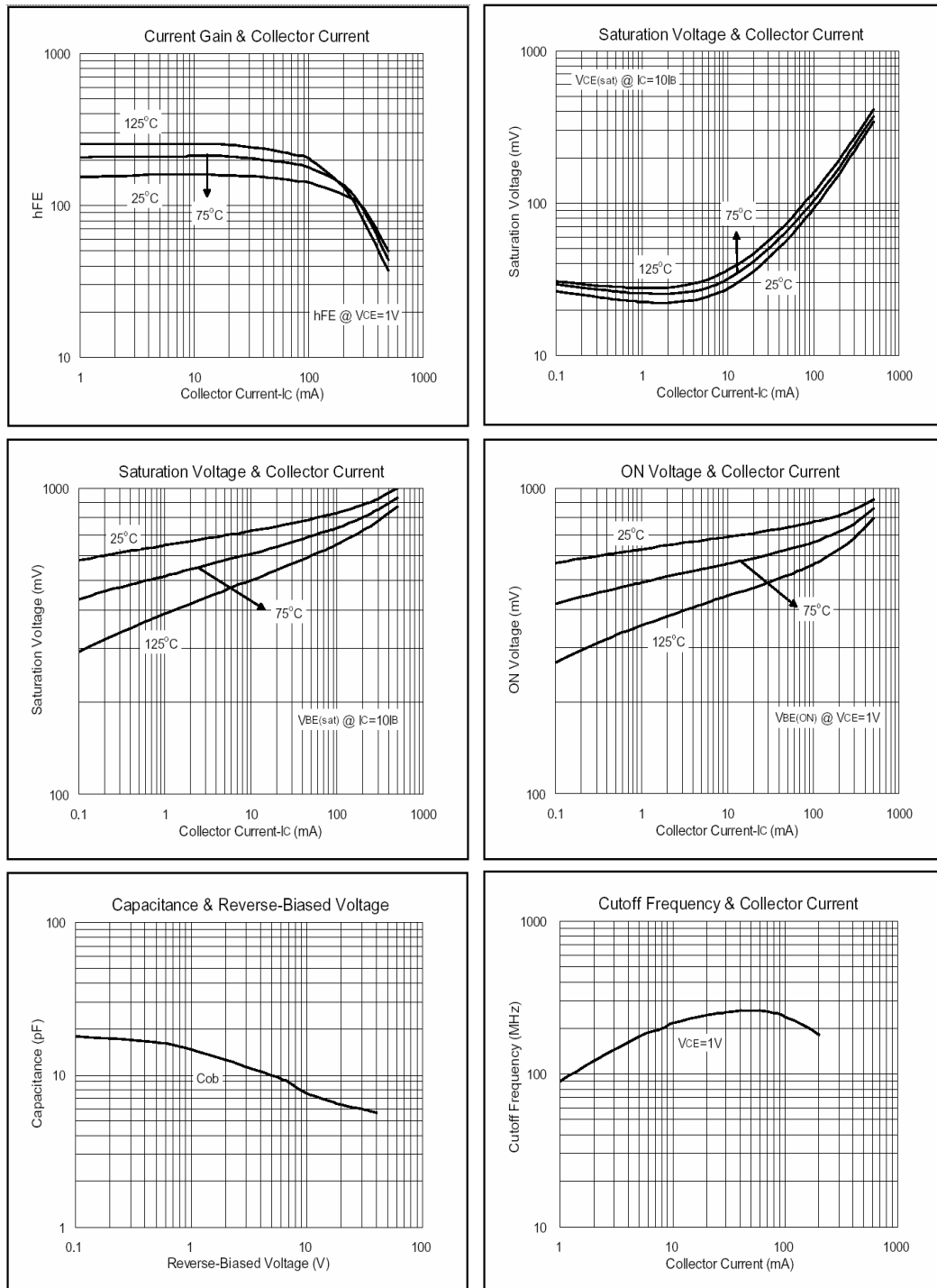
#### Characteristics at Ta = 25°C

| Symbol         | Min. | Typ. | Max. | Unit | Test Conditions                               |
|----------------|------|------|------|------|-----------------------------------------------|
| BVCBO          | -40  | -    | -    | V    | I <sub>C</sub> =-100uA, I <sub>E</sub> =0     |
| BVCEO          | -20  | -    | -    | V    | I <sub>C</sub> =-1mA, I <sub>B</sub> =0       |
| BVEBO          | -5   | -    | -    | V    | I <sub>E</sub> =-100uA, I <sub>C</sub> =0     |
| ICBO           | -    | -    | -100 | nA   | VCE=-25V, I <sub>E</sub> =0                   |
| IEBO           | -    | -    | -100 | nA   | VEB=-3V, I <sub>C</sub> =0                    |
| VCE(sat)       | -    | -    | -0.6 | V    | I <sub>C</sub> =-500mA, I <sub>B</sub> =-50mA |
| VBE(sat)       | -    | -    | -1.2 | V    | I <sub>C</sub> =-500mA, I <sub>B</sub> =-50mA |
| VBE(on)        | -    | -    | -0.9 | V    | VCE=-1V, I <sub>C</sub> =-10mA                |
| hFE1           | 112  | 180- | 300  |      | VCE=-1V, I <sub>C</sub> =-50mA                |
| hFE2           | 40   | -    | -    |      | VCE=-1V, I <sub>C</sub> =-500mA               |
| f <sub>T</sub> | 100  | -    | -    | MHz  | VCE=-1V, I <sub>C</sub> =-10mA, f=100MHz      |
| Cob            | -    | -    | 8    | pF   | VCB=-10V, f=1MHz                              |

#### Classification Of HFE1

| Rank | G         | H         | L         |
|------|-----------|-----------|-----------|
| hFE  | 112 - 166 | 144 - 202 | 176 - 300 |

## Characteristics Curve



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