

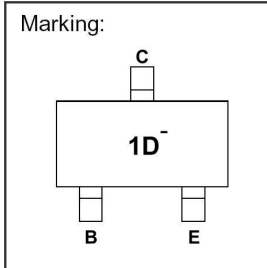
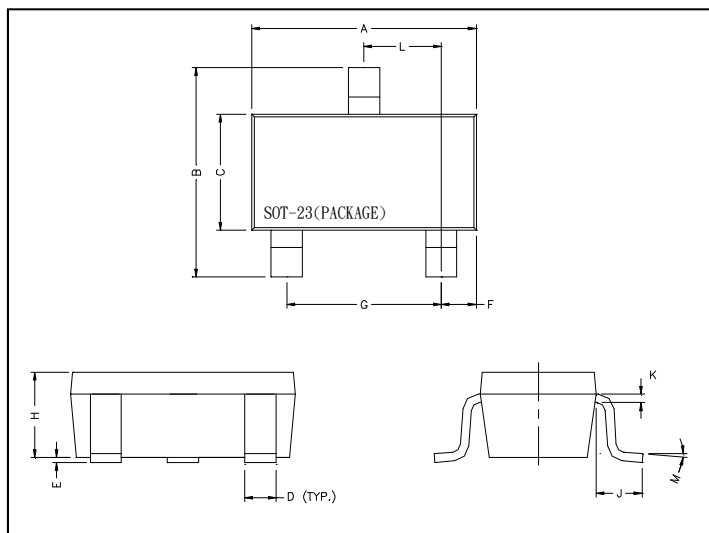
## GMBTA42

### NPN EPITAXIAL PLANAR TRANSISTOR

#### Description

The GMBTA42 is designed for high voltage transistor.

#### Package Dimensions



| REF. | Millimeter |      | REF. | Millimeter |      |
|------|------------|------|------|------------|------|
|      | Min.       | Max. |      | Min.       | Max. |
| A    | 2.70       | 3.10 | G    | 1.90       | REF. |
| B    | 2.40       | 2.80 | H    | 1.00       | 1.30 |
| C    | 1.40       | 1.60 | K    | 0.10       | 0.20 |
| D    | 0.35       | 0.50 | J    | 0.40       | -    |
| E    | 0          | 0.10 | L    | 0.85       | 1.15 |
| F    | 0.45       | 0.55 | M    | 0°         | 10°  |

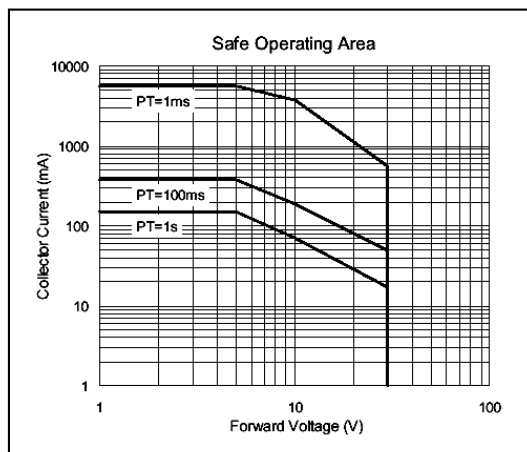
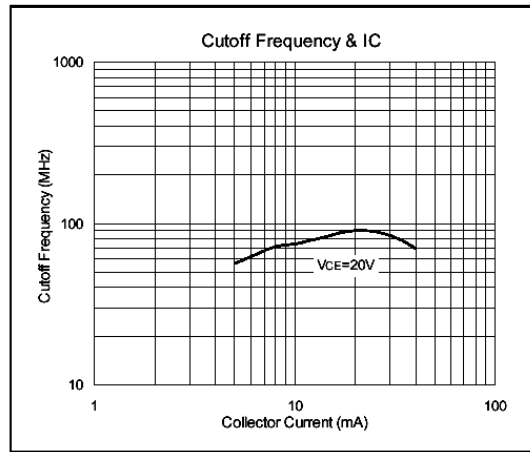
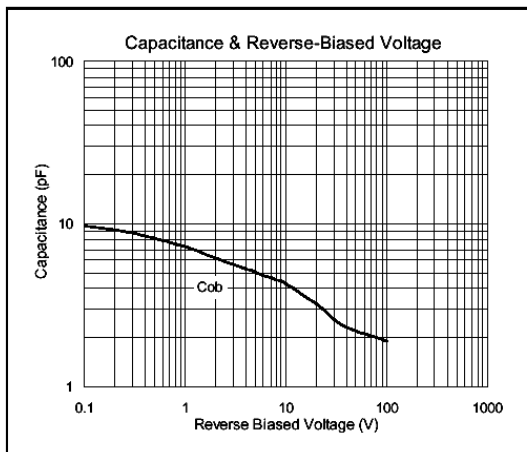
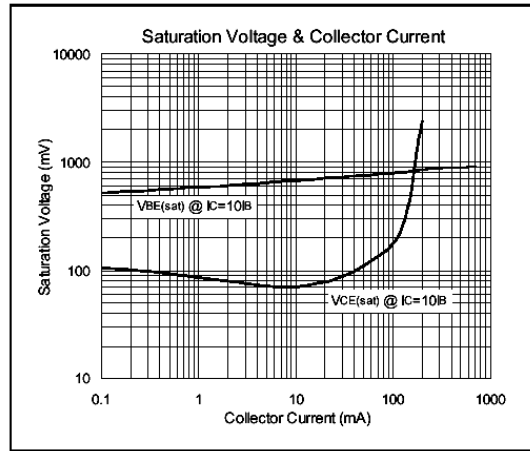
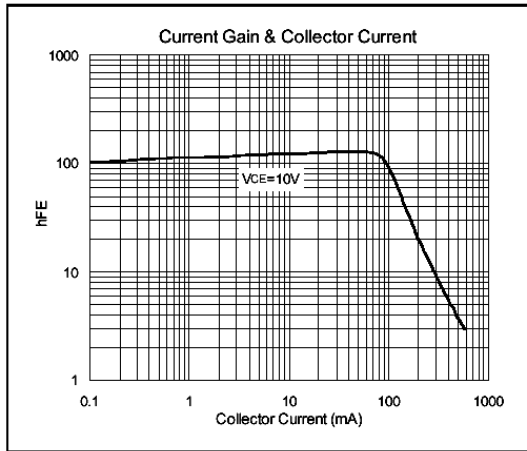
#### Absolute Maximum Ratings at Ta = 25°C

| Parameter                    | Symbol | Ratings  | Unit |
|------------------------------|--------|----------|------|
| Junction Temperature         | Tj     | +150     | °C   |
| Storage Temperature          | Tstg   | -55~+150 | °C   |
| Collector to Base Voltage    | VCBO   | 300      | V    |
| Collector to Emitter Voltage | VCEO   | 300      | V    |
| Emitter to Base Voltage      | VEBO   | 6        | V    |
| Collector Current            | IC     | 500      | mA   |
| Total Power Dissipation      | PD     | 350      | mW   |

#### Characteristics at Ta = 25°C

| Symbol   | Min. | Typ. | Max. | Unit | Test Conditions            |
|----------|------|------|------|------|----------------------------|
| BVCBO    | 300  | -    | -    | V    | IC=100uA, IE=0             |
| BVCEO    | 300  | -    | -    | V    | IC=1mA, IB=0               |
| BVEBO    | 6    | -    | -    | V    | IE=100uA, IC=0             |
| ICBO     | -    | -    | 100  | nA   | VCB=200V, IE=0             |
| IEBO     | -    | -    | 100  | nA   | VEB=6V, IC=0               |
| VCE(sat) | -    | -    | 500  | mV   | IC=20mA, IB=2mA            |
| VBE(sat) | -    | -    | 900  | mV   | IC=20mA, IB=2mA            |
| hFE1     | 25   | -    | -    |      | VCE=10V, IC=1mA            |
| hFE2     | 40   | -    | -    |      | VCE=10V, IC=10mA           |
| hFE3     | 40   | -    | -    |      | VCE=10V, IC=30mA           |
| fT       | 50   | -    | -    | MHz  | VCE=20V, IC=10mA, f=100MHz |
| Cob      | -    | -    | 3    | pF   | VCB=20V, f=1MHz            |

## Characteristics Curve



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