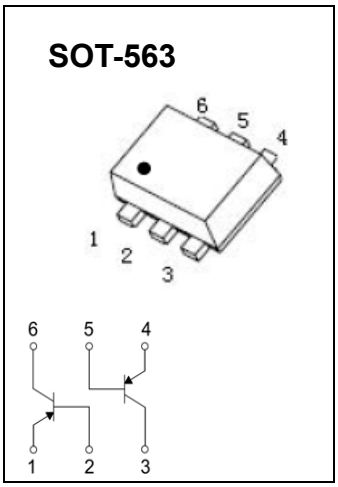
# Plastic-Encapsulate Transistors

## EMT1 DUAL TRANSISTOR (PNP+PNP)




### FEATURES

- Two 2SA1037AK chips in a package
- Mounting possible with SOT-563 automatic mounting machines
- Transistor elements are independent,eliminating interference

**Marking: T1**

### Absolute maximum ratings ($T_a$=25℃)

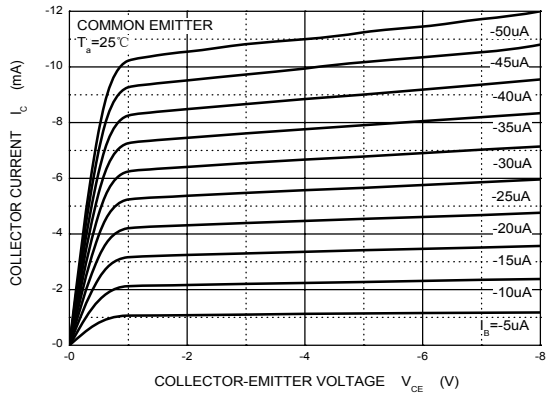
| Symbol | Parameter | Value | Units |
|---|---|---|---|
| $V_{CBO}$ | Collector-Base Voltage | -60 | V |
| $V_{CEO}$ | Collector-Emitter Voltage | -50 | V |
| $V_{EBO}$ | Emitter-Base Voltage | -6 | V |
| $I_C$ | Collector Current | -150 | mA |
| $P_C$ | Collector Power Dissipation | 150 | mW |
| $T_J$,$T_{stg}$ | Operation Junction and Storage Temperature Range | -55~+150 | ℃ |

### ELECTRICAL CHARACTERISTICS ($T_a$=25℃ unless otherwise specified)

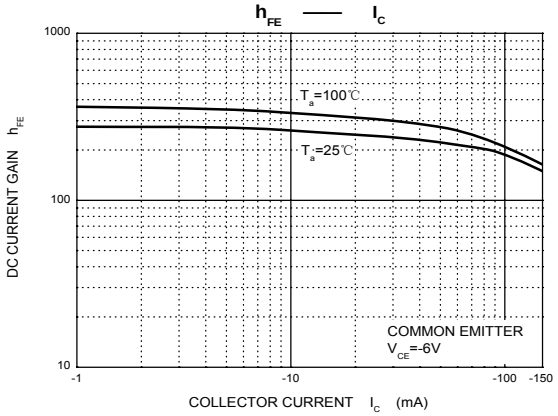
| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| **Collector-base breakdown voltage** | $V_{(BR)CBO}$ | $I_C$=-50μA, $I_E$=0 | -60 | | | V |
| **Collector-emitter breakdown voltage** | $V_{(BR)CEO}$ | $I_C$=-1mA, $I_B$=0 | -50 | | | V |
| **Emitter-base breakdown voltage** | $V_{(BR)EBO}$ | $I_E$=-50μA, $I_C$=0 | -6 | | | V |
| **Collector cut-off current** | $I_{CBO}$ | $V_{CB}$=-60V, $I_E$=0 | | | -0.1 | μA |
| **Emitter cut-off current** | $I_{EBO}$ | $V_{EB}$=-7V, $I_C$=0 | | | -0.1 | μA |
| **DC current gain** | $h_{FE}$ | $V_{CE}$=-6V, $I_C$=-1mA | 120 | | 560 | |
| **Collector-emitter saturation voltage** | $V_{CE(sat)}$ | $I_C$=-50mA, $I_B$=-5mA | | | -0.5 | V |
| **Transition frequency** | $f_T$ | $V_{CE}$=-12V, $I_C$=-2mA, f=100MHz | | 140 | | MHz |
| **Output capacitance** | $C_{ob}$ | $V_{CB}$=-12V, $I_E$=0, f=1MHz | | | 5 | pF |

## Typical Characteristics

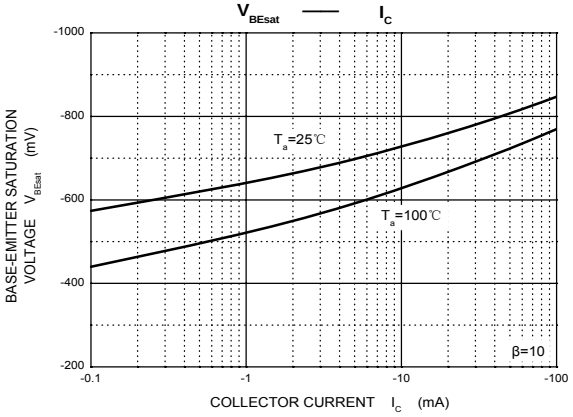
Static Characteristic



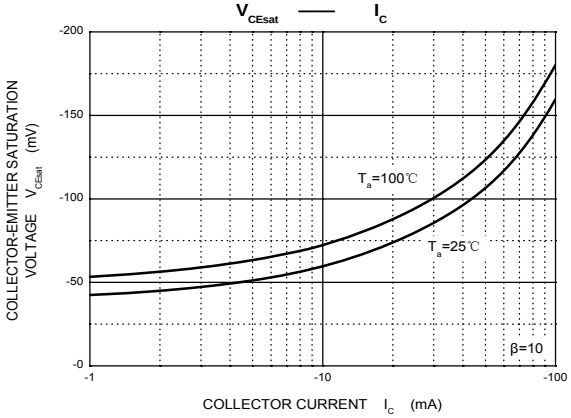

hFE —— IC



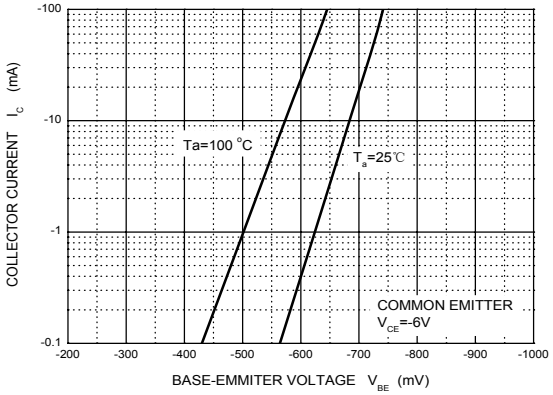

VBEsat —— IC



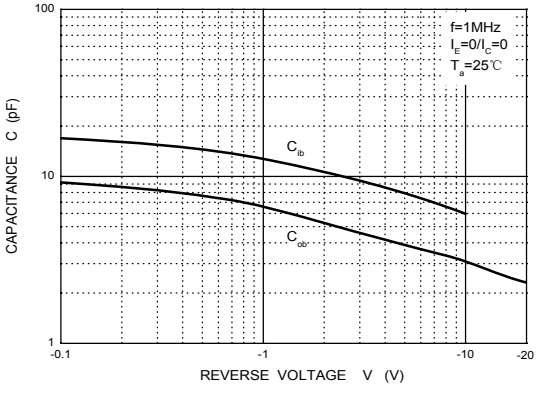

VCEsat —— IC



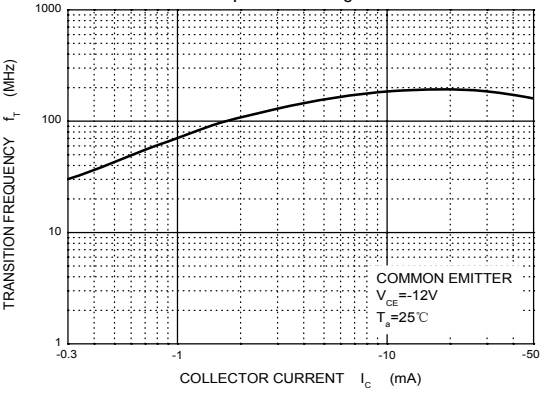

IC —— VBE




Cob/ Cib —— VCB/ VEB




fT —— IC




PC —— Ta