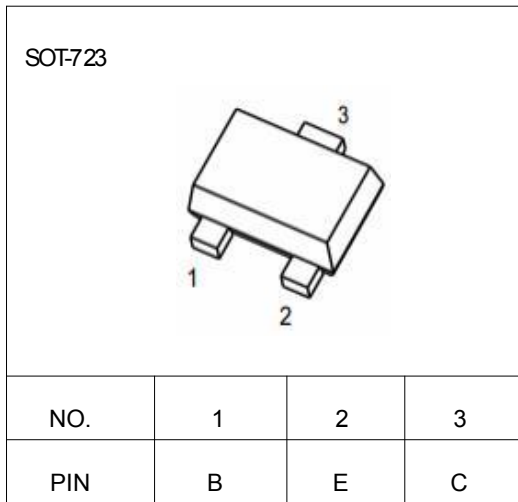


## ■ FEATURES

- Complement to MMBT3904M
- Collector-Emitter Voltage :  $V_{ce0} = -40V$
- Collector Dissipation :  $P_c = 100mW (T_a = 25^{\circ}C)$

## ■ MARKING:3N

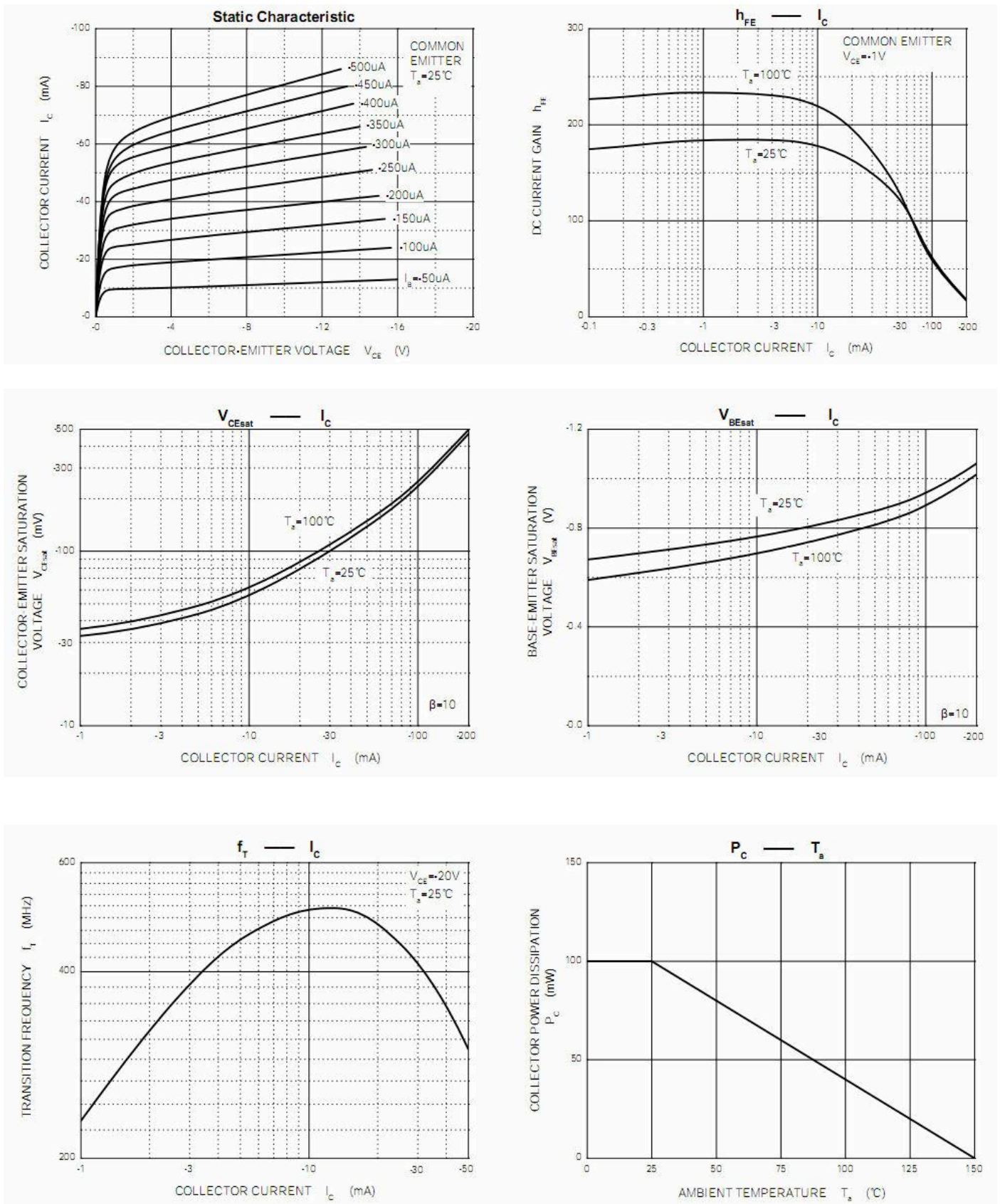


## ■ Absolute Maximum Ratings ( $T_{amb} = 25^{\circ}C$ )

| Parameter                 | Symbol    | Rating  | Unit        |
|---------------------------|-----------|---------|-------------|
| Collector-Base Voltage    | $V_{cbo}$ | -40     | V           |
| Collector-Emitter Voltage | $V_{ceo}$ | -40     | V           |
| Emitter-Base Voltage      | $V_{ebo}$ | -6      | V           |
| Collector Current         | $I_c$     | -200    | mA          |
| Collector Dissipation     | $P_c$     | 100     | mW          |
| Junction Temperature      | $T_j$     | 150     | $^{\circ}C$ |
| Storage Temperature       | $T_{stg}$ | -55~150 | $^{\circ}C$ |

## ■ Electrical Characteristics ( $T_{amb} = 25^{\circ}C$ )

| Parameter                            | Symbol        | Test Conditions                          | Min | Typ | Max   | Unit |
|--------------------------------------|---------------|------------------------------------------|-----|-----|-------|------|
| Collector-Base Breakdown Voltage     | $BV_{cbo}$    | $I_c = -10\mu A, I_e = 0$                | -40 |     |       | V    |
| Collector-Emitter Breakdown Voltage  | $BV_{ceo}$    | $I_c = -1mA, I_b = 0$                    | -40 |     |       | V    |
| Emitter-Base Breakdown Voltage       | $BV_{ebo}$    | $I_e = -10\mu A, I_c = 0$                | -6  |     |       | V    |
| Collector Cutoff Current             | $I_{cbo}$     | $V_{ce} = -40V, V_{eb} = -3V$            |     |     | -100  | nA   |
| Collector Cutoff Current             | $I_{cex}$     | $V_{ce} = -30V, V_{eb} = -3V$            |     |     | -50   | nA   |
| Emitter Cutoff Current               | $I_{ebo}$     | $V_{eb} = -5V, I_c = 0$                  |     |     | -100  | nA   |
| DC Current Gain                      | $H_{fe1}$     | $V_{ce} = -1V, I_c = -10mA$              | 100 |     | 300   |      |
| DC Current Gain                      | $H_{fe2}$     | $V_{ce} = -1V, I_c = -50mA$              | 60  |     |       |      |
| DC Current Gain                      | $H_{fe3}$     | $V_{ce} = -1V, I_c = -100mA$             | 30  |     |       |      |
| Collector-Emitter Saturation Voltage | $V_{ce(sat)}$ | $I_c = -50mA, I_b = -5mA$                |     |     | -0.3  | V    |
| Base-Emitter Saturation Voltage      | $V_{be(sat)}$ | $I_c = -50mA, I_b = -5mA$                |     |     | -0.95 | V    |
| Output Capacitance                   | $C_{ob}$      | $V_{cb} = -5V, I_e = 0, f = 100KHz$      |     |     | 4.5   | pF   |
| Current Gain-Bandwidth Product       | $f_T$         | $V_{ce} = -20V, I_c = -10mA, f = 100MHz$ | 250 |     |       | MHz  |



■ SOT-723 PACKAGE OUTLINE DIMENSIONS

