



## SOT-23 Plastic-Encapsulated Transistors

### 2SA1037 TRANSISTOR (PNP)

#### FEATURES

Power dissipation

$$P_{CM} : 0.2 \text{ W (Tamb=25}^\circ\text{C)}$$

Collector current

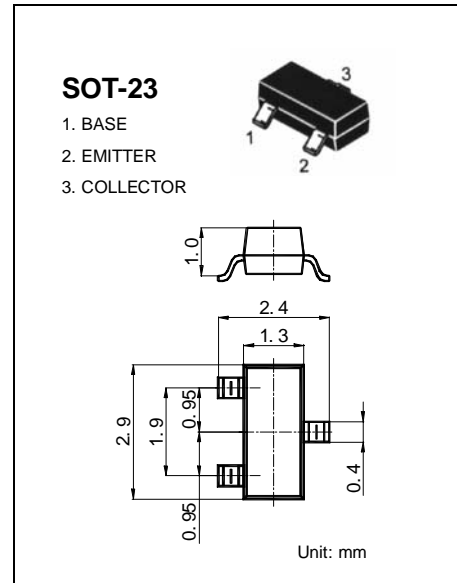
$$I_{CM} : -0.15 \text{ A}$$

Collector-base voltage

$$V_{(BR)CBO} : -60 \text{ V}$$

Operating and storage junction temperature range

$$T_J, T_{stg} : -55^\circ\text{C to } +150^\circ\text{C}$$



#### ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)

| Parameter                            | Symbol        | Test conditions   | MIN | TYP | MAX  | UNIT          |
|--------------------------------------|---------------|---|-----|-----|------|---------------|
| Collector-base breakdown voltage     | $V_{(BR)CBO}$ | $I_C = -50\mu\text{A}, I_E = 0$                                       | -60 |     |      | V             |
| Collector-emitter breakdown voltage  | $V_{(BR)CEO}$ | $I_C = -1\text{mA}, I_B = 0$  | -50 |     |      | V             |
| Emitter-base breakdown voltage       | $V_{(BR)EBO}$ | $I_E = -50\mu\text{A}, I_C = 0$                                       | -6  |     |      | V             |
| Collector cut-off current            | $I_{CBO}$     | $V_{CB} = -60 \text{ V}, I_E = 0$                                     |     |     | -0.1 | $\mu\text{A}$ |
| Emitter cut-off current              | $I_{EBO}$     | $V_{EB} = -6 \text{ V}, I_C = 0$                                      |     |     | -0.1 | $\mu\text{A}$ |
| DC current gain                      | $h_{FE}$      | $V_{CE} = -6 \text{ V}, I_C = -1 \text{ mA}$                          | 120 |     | 560  |               |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -50 \text{ mA}, I_B = -5 \text{ mA}$                           |     |     | -0.5 | V             |
| Transition frequency                 | $f_T$         | $V_{CE} = -12 \text{ V}, I_C = -2 \text{ mA}$<br>$f = 30 \text{ MHz}$ | 120 |     |      | MHz           |

#### CLASSIFICATION OF $h_{FE}$

| Rank    | Q       | R       | S       |
|---------|---------|---------|---------|
| Range   | 120-270 | 180-390 | 270-560 |
| Marking | FQ      | FR      | FS      |