



SOT-23 Plastic-Encapsulated Transistors

2SB709A TRANSISTOR (PNP)

FEATURES

Power dissipation

$$P_{CM}: 0.2 \text{ W (Tamb=25°C)}$$

Collector current

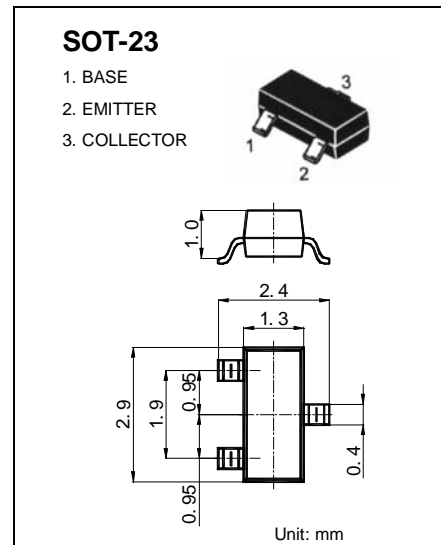
$$I_{CM}: -0.2 \text{ A}$$

Collector-base voltage

$$V_{(BR)CBO}: -45 \text{ V}$$

Operating and storage junction temperature range

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



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

| Parameter | Symbol | Test conditions | MIN | MAX | UNIT |
|--------------------------------------|---------------|--|-----|------|---------|
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | $I_C = -10 \mu A, I_E = 0$ | -45 | | V |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C = -2 \text{ mA}, I_B = 0$ | -45 | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E = -10 \mu A, I_C = 0$ | -7 | | V |
| Collector cut-off current | I_{CBO} | $V_{CB} = -20 \text{ V}, I_E = 0$ | | -0.1 | μA |
| Collector cut-off current | I_{CEO} | $V_{CE} = -10 \text{ V}, I_B = 0$ | | -100 | μA |
| DC current gain | h_{FE} | $V_{CE} = -10 \text{ V}, I_C = -2 \text{ mA}$ | 160 | 460 | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -100 \text{ mA}, I_B = -10 \text{ mA}$ | | -0.5 | V |
| Transition frequency | f_T | $V_{CE} = -10 \text{ V}, I_C = -1 \text{ mA}$ $f = 200 \text{ MHz}$ | 60 | | MHz |

CLASSIFICATION OF H_{FE}

| Rank | Q | R | S |
|-------|---------|---------|---------|
| Range | 160-260 | 210-340 | 290-460 |

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|---------|----|
| Marking | BR |
|---------|----|