

### PZT2907A TRANSISTOR (PNP)

#### FEATURES

Power dissipation

$$P_{CM}: 1 \text{ W (Tamb=25}^{\circ}\text{C)}$$

Collector current

$$I_{CM}: -0.6 \text{ A}$$

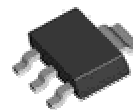
Collector-base voltage

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

Operating and storage junction temperature range

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

#### SOT-223



1. BASE
2. COLLECTOR
3. EMITTER

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

| Parameter                            | Symbol        | Test conditions   | MIN | TYP | MAX  | UNIT |
|--------------------------------------|---------------|---|-----|-----|------|------|
| Collector-base breakdown voltage     | $V_{(BR)CBO}$ | $I_C = -100\mu\text{A}, I_E = 0$                              | -60 |     |      | V    |
| Collector-emitter breakdown voltage  | $V_{(BR)CEO}$ | $I_C = -1\text{mA}, I_B = 0$                                  | -60 |     |      | V    |
| Emitter-base breakdown voltage       | $V_{(BR)EBO}$ | $I_E = -100\mu\text{A}, I_C = 0$                              | -5  |     |      | V    |
| Collector cut-off current            | $I_{CBO}$     | $V_{CB} = -50\text{V}, I_E = 0$                               |     |     | -10  | nA   |
| Emitter cut-off current              | $I_{EBO}$     | $V_{EB} = -5\text{V}, I_C = 0$                                |     |     | -50  | nA   |
| DC current gain                      | $h_{FE(1)}$   | $V_{CE} = -10\text{V}, I_C = -0.1\text{mA}$                   | 75  |     |      |      |
|                                      | $h_{FE(2)}$   | $V_{CE} = -10\text{V}, I_C = -1\text{mA}$                     | 100 |     |      |      |
|                                      | $h_{FE(3)}$   | $V_{CE} = -10\text{V}, I_C = -10\text{mA}$                    | 100 |     |      |      |
|                                      | $h_{FE(4)}$   | $V_{CE} = -10\text{V}, I_C = -150\text{mA}$                   | 100 |     | 300  |      |
|                                      | $h_{FE(5)}$   | $V_{CE} = -10\text{V}, I_C = -500\text{mA}$                   | 50  |     |      |      |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -150\text{mA}, I_B = -15\text{mA}$                     |     |     | -0.4 | V    |
|                                      | $V_{CE(sat)}$ | $I_C = -500\text{mA}, I_B = -50\text{mA}$                     |     |     | -1.6 | V    |
| Base-emitter saturation voltage      | $V_{BE(sat)}$ | $I_C = -150\text{mA}, I_B = -15\text{mA}$                     |     |     | -1.3 | V    |
|                                      | $V_{BE(sat)}$ | $I_C = -500\text{mA}, I_B = -50\text{mA}$                     |     |     | -2.6 | V    |
| Transition frequency                 | $f_T$         | $V_{CE} = -20\text{V}, I_C = -50\text{mA}, f = 100\text{MHz}$ | 200 |     |      | MHz  |
| Collector capacitance                | $C_C$         | $V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$              |     |     | 8    | pF   |
| Emitter capacitance                  | $C_E$         | $V_{EB} = -2\text{V}, I_C = 0, f = 1\text{MHz}$               |     |     | 30   | pF   |
| Delay time                           | $t_d$         | $I_C = -150\text{mA} \quad I_{B1} = - I_{B2} = -15\text{mA}$  |     |     | 12   | nS   |
| Rise time                            | $t_r$         |   |     |     | 30   | nS   |
| Storage time                         | $t_s$         |   |     |     | 300  | nS   |
| Fall time                            | $t_f$         |   |     |     | 65   | nS   |