



## TO-92 Plastic-Encapsulate Transistors

### KTA1271 TRANSISTOR (PNP)

#### FEATURES

Power dissipation

$$P_{CM}: 0.625 \text{ W (Tamb=25}^{\circ}\text{C)}$$

Collector current

$$I_{CM}: -0.8 \text{ A}$$

Collector-base voltage

$$V_{(BR)CBO}: -35 \text{ V}$$

Operating and storage junction temperature range

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

#### TO-92

1. EMITTER

2. COLLECTOR

3. BASE



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

| Parameter                            | Symbol        | Test conditions                                   | MIN | TYP | MAX  | UNIT          |
|--------------------------------------|---------------|---------------------------------------------------|-----|-----|------|---------------|
| Collector-base breakdown voltage     | $V_{(BR)CBO}$ | $I_C = -100\mu\text{A}$ , $I_E = 0$               | -35 |     |      | V             |
| Collector-emitter breakdown voltage  | $V_{(BR)CEO}$ | $I_C = -10 \text{ mA}$ , $I_B = 0$                | -30 |     |      | V             |
| Emitter-base breakdown voltage       | $V_{(BR)EBO}$ | $I_E = -100\mu\text{A}$ , $I_C = 0$               | -5  |     |      | V             |
| Collector cut-off current            | $I_{CBO}$     | $V_{CB} = -35 \text{ V}$ , $I_E = 0$              |     |     | -0.1 | $\mu\text{A}$ |
| Collector cut-off current            | $I_{CEO}$     | $V_{CE} = -25 \text{ V}$ , $I_B = 0$              |     |     | -0.2 | $\mu\text{A}$ |
| Emitter cut-off current              | $I_{EBO}$     | $V_{EB} = -5 \text{ V}$ , $I_C = 0$               |     |     | -0.1 | $\mu\text{A}$ |
| DC current gain                      | $h_{FE1}$     | $V_{CE} = -1 \text{ V}$ , $I_C = -100 \text{ mA}$ | 100 |     | 320  |               |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -500 \text{ mA}$ , $I_B = -20 \text{ mA}$  |     |     | -0.7 | V             |
| Base-emitter voltage                 | $V_{BE}$      | $V_{CE} = -1 \text{ V}$ , $I_C = -10 \text{ mA}$  |     |     | -0.8 | V             |
| Transition frequency                 | $f_T$         | $V_{CE} = -5 \text{ V}$ , $I_C = -10 \text{ mA}$  | 120 |     |      | MHz           |

#### CLASSIFICATION OF $h_{FE(1)}$

| Rank  | O       | Y       |
|-------|---------|---------|
| Range | 100-200 | 160-320 |