



# TIGER ELECTRONIC CO.,LTD

## TO-92 Plastic-Encapsulate Transistors

### KTA1266 TRANSISTOR (PNP)

#### FEATURES

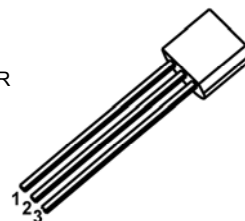
- Excellent  $h_{FE}$  Linearity
- Low Noise
- Complementary to KTC3198

#### MAXIMUM RATINGS ( $T_a=25^\circ\text{C}$ unless otherwise noted)

| Symbol    | Parameter                     | Value   | Units            |
|-----------|-------------------------------|---------|------------------|
| $V_{CBO}$ | Collector-Base Voltage        | -50     | V                |
| $V_{CEO}$ | Collector-Emitter Voltage     | -50     | V                |
| $V_{EBO}$ | Emitter-Base Voltage          | -5      | V                |
| $I_C$     | Collector Current -Continuous | -0.15   | A                |
| $P_C$     | Collector Power Dissipation   | 625     | mW               |
| $T_j$     | Junction Temperature          | 150     | $^\circ\text{C}$ |
| $T_{stg}$ | Storage Temperature           | -55-150 | $^\circ\text{C}$ |

#### TO-92

1. EMITTER
2. COLLECTOR
3. BASE



#### ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ unless otherwise specified)

| Parameter                            | Symbol        | Test conditions                                                                                 | Min | Typ | Max  | Unit          |
|--------------------------------------|---------------|-------------------------------------------------------------------------------------------------|-----|-----|------|---------------|
| Collector-base breakdown voltage     | $V_{(BR)CBO}$ | $I_C = -100\mu\text{A}$ , $I_E = 0$                                                             | -50 |     |      | V             |
| Collector-emitter breakdown voltage  | $V_{(BR)CEO}$ | $I_C = -1\text{mA}$ , $I_B = 0$                                                                 | -50 |     |      | V             |
| Emitter-base breakdown voltage       | $V_{(BR)EBO}$ | $I_E = -100\mu\text{A}$ , $I_C = 0$                                                             | -5  |     |      | V             |
| Collector cut-off current            | $I_{CBO}$     | $V_{CB} = -50\text{V}$ , $I_E = 0$                                                              |     |     | -0.1 | $\mu\text{A}$ |
| Emitter cut-off current              | $I_{EBO}$     | $V_{EB} = -5\text{V}$ , $I_C = 0$                                                               |     |     | -0.1 | $\mu\text{A}$ |
| DC current gain                      | $h_{FE(1)}$   | $V_{CE} = -6\text{V}$ , $I_C = -2\text{mA}$                                                     | 70  |     | 400  |               |
|                                      | $h_{FE(2)}$   | $V_{CE} = -6\text{V}$ , $I_C = -150\text{mA}$                                                   | 25  |     |      |               |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -100\text{mA}$ , $I_B = -10\text{mA}$                                                    |     |     | -0.3 | V             |
| Base-emitter saturation voltage      | $V_{BE(sat)}$ | $I_C = -100\text{mA}$ , $I_B = -10\text{mA}$                                                    |     |     | -1.1 | V             |
| Transition frequency                 | $f_T$         | $V_{CE} = -10\text{V}$ , $I_C = -1\text{mA}$                                                    | 80  |     |      | MHz           |
| Collector output capacitance         | $C_{ob}$      | $V_{CB} = -10\text{V}$ , $I_E = 0$ , $f = 1\text{MHz}$                                          |     |     | 7    | pF            |
| Noise figure                         | NF            | $V_{CE} = -6\text{V}$ , $I_C = -0.1\text{mA}$ ,<br>$f = 1\text{KHz}$ , $R_g = 10\text{K}\Omega$ |     |     | 10   | dB            |

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

| Rank    | O      | Y       | GR      |
|---------|--------|---------|---------|
| Range   | 70-140 | 120-240 | 200-400 |
| Marking |        |         |         |