

# 深圳市晶泰源电子有限公司

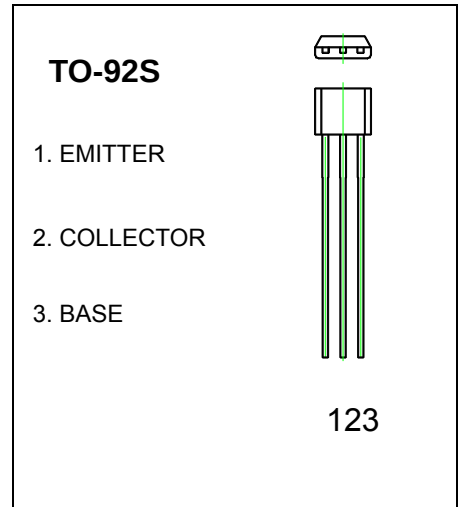
## KTC3195 TRANSISTOR (NPN)

### FEATURES

- Small reverse transfer capacitance  $C_{re}=0.7\text{pF(Typ)}$
- Low noise Figure:  $NF=2.5\text{dB(Typ)}$

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

| Symbol    | Parameter                     | Value   | Units            |
|-----------|-------------------------------|---------|------------------|
| $V_{CBO}$ | Collector-Base Voltage        | 40      | V                |
| $V_{CEO}$ | Collector-Emitter Voltage     | 30      | V                |
| $V_{EBO}$ | Emitter-Base Voltage          | 4       | V                |
| $I_C$     | Collector Current -Continuous | 20      | mA               |
| $P_C$     | Collector Power Dissipation   | 400     | mW               |
| $T_J$     | Junction Temperature          | 150     | $^\circ\text{C}$ |
| $T_{stg}$ | Storage Temperature           | -55-150 | $^\circ\text{C}$ |



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

| Parameter                           | Symbol        | Test conditions                                           | MIN | TYP | MAX | UNIT          |
|-------------------------------------|---------------|-----------------------------------------------------------|-----|-----|-----|---------------|
| Collector-base breakdown voltage    | $V_{(BR)CBO}$ | $I_C=100\mu\text{A}$ , $I_E=0$                            | 40  |     |     | V             |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C=1\text{mA}$ , $I_B=0$                                | 30  |     |     | V             |
| Emitter-base breakdown voltage      | $V_{(BR)EBO}$ | $I_E=100\mu\text{A}$ , $I_C=0$                            | 4   |     |     | V             |
| Collector cut-off current           | $I_{CBO}$     | $V_{CB}=40\text{V}$ , $I_E=0$                             |     |     | 0.5 | $\mu\text{A}$ |
| Emitter cut-off current             | $I_{EBO}$     | $V_{EB}=4\text{V}$ , $I_C=0$                              |     |     | 0.5 | $\mu\text{A}$ |
| DC current gain                     | $h_{FE(1)}$   | $V_{CE}=6\text{V}$ , $I_C=1\text{mA}$                     | 40  |     | 200 |               |
| Transition frequency                | $f_T$         | $V_{CE}=6\text{V}$ , $I_C=1\text{mA}$                     | 300 | 550 |     | MHz           |
| Reverse Transfer capacitance        | $C_{re}$      | $V_{CB}=6\text{V}$ , $I_E=0$ , $f=1\text{MHz}$            |     | 0.7 |     | pF            |
| Noise figure                        | NF            | $V_{CE}=6\text{V}$ , $I_C=1\text{mA}$ , $f=100\text{MHz}$ |     | 2.5 | 5   | dB            |
| Power Gain                          | $G_{pe}$      |                                                           |     | 18  |     | dB            |

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

|         |  |  |         |
|---------|--|--|---------|
| Rank    |  |  | Y       |
| Range   |  |  | 100-200 |
| Marking |  |  |         |