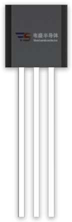
# 2N5172 TRANSISTOR (NPN)



TO-92

1.EMITTER

2.COLLECTOR

3.BASE

## FEATURES

- General Purpose Amplifier Transistor

## ORDERING INFORMATION

| Part Number | Package | Packing Method | Pack Quantity |
|---|---|---|---|
| 2N5172 | TO-92 | Bulk | 1000pcs/Bag |
| 2N5172-TA | TO-92 | Tape | 2000pcs/Box |

## MAXIMUM RATINGS ($T_a$=25℃ unless otherwise noted)

| Symbol | Parameter | Value | Unit |
|---|---|---|---|
| $V_{CBO}$ | Collector-Base Voltage | 25 | V |
| $V_{CEO}$ | Collector-Emitter Voltage | 25 | V |
| $V_{EBO}$ | Emitter-Base Voltage | 5 | V |
| $I_C$ | Collector Current -Continuous | 0.5 | A |
| $P_D$ | Collector Power Dissipation | 625 | mW |
| $R_{\theta JA}$ | Thermal Resistance rom Junction to Ambient | 200 | ℃ /W |
| $T_J$,$T_{stg}$ | Operation Junction and Storage Temperature Range | -55~+150 | ℃ |

**$T_a$=25℃ unless otherwise specified**

| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| **Collector-base breakdown voltage** | $V_{(BR)CBO}$ | $I_C$= 0.01mA,$I_E$=0 | 25 | | | V |
| **Collector-emitter breakdown voltage** | $V_{(BR)CEO}$ | $I_C$=10mA,$I_B$=0 | 25 | | | V |
| **Emitter-base breakdown voltage** | $V_{(BR)EBO}$ | $I_E$=0.01mA,$I_C$=0 | 5 | | | V |
| **Collector cut-off current** | $I_{CBO}$ | $V_{CB}$=25V,$I_E$=0 | | | 0.1 | μA |
| **Emitter cut-off current** | $I_{EBO}$ | $V_{EB}$=5V,$I_C$=0 | | | 0.1 | μA |
| **DC current gain** | $h_{FE}$ | $V_{CE}$=10V, $I_C$=10mA | 100 | | 500 | |
| **Collector-emitter saturation voltage** | $V_{CE(sat)}$ | $I_C$=10mA,$I_B$=1mA | | | 0.25 | V |
| **Base-emitter voltage** | $V_{BE}$ | $V_{CE}$=10V, $I_C$=10mA | 0.5 | | 1.2 | V |