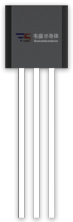
# 2N5087 TRANSISTOR (PNP)



TO-92

1.EMITTER
2.COLLECTOR
3.BASE

## FEATURES

- General Purpose Amplifier Transistor

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

| Symbol | Parameter | Value | Unit |
|---|---|---|---|
| $V_{CBO}$ | Collector-Base Voltage | -50 | V |
| $V_{CEO}$ | Collector-Emitter Voltage | -50 | V |
| $V_{EBO}$ | Emitter-Base Voltage | -3 | V |
| $I_C$ | Collector Current | -50 | mA |
| $P_C$ | Collector Power Dissipation | 625 | mW |
| $R_{\theta JA}$ | Thermal Resistance From Junction To Ambient | 200 | ℃/W |
| $T_J$,$T_{stg}$ | Operation Junction and Storage Temperature Range | -55~+150 | ℃ |

## ELECTRICAL CHARACTERISTICS ($T_a$=25℃ unless otherwise specified)

| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | $I_C$=-0.1mA,$I_E$=0 | -50 | | | V |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C$=-1mA,$I_B$=0 | -50 | | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E$=-0.01mA,$I_C$=0 | -3 | | | V |
| Collector cut-off current | $I_{CBO}$ | $V_{CB}$=-35V,$I_E$=0 | | | -50 | nA |
| Emitter cut-off current | $I_{EBO}$ | $V_{EB}$=-3V,$I_C$=0 | | | -50 | nA |
| DC current gain | $h_{FE(1)}$* | $V_{CE}$=-5V, $I_C$=-0.1mA | 250 | | 800 | |
| | $h_{FE(2)}$* | $V_{CE}$=-5V, $I_C$=-1mA | 250 | | | |
| | $h_{FE(3)}$* | $V_{CE}$=-5V, $I_C$=-10mA | 250 | | | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$* | $I_C$=-10mA,$I_B$=-1mA | | | -0.3 | V |
| Base-emitter voltage | $V_{BE}$* | $V_{CE}$=-5V, $I_C$=-10mA | | | -0.85 | V |
| Collector output capacitance | $C_{ob}$ | $V_{CB}$=-5V,$I_E$=0, f=1MHz | | | 4 | pF |
| Transition frequency | $f_T$ | $V_{CE}$=-5V,$I_C$=-0.5mA, f=100MHz | 40 | | | MHz |

*Pulse test: pulse width ≤380μs, duty cycle≤ 2.0%.