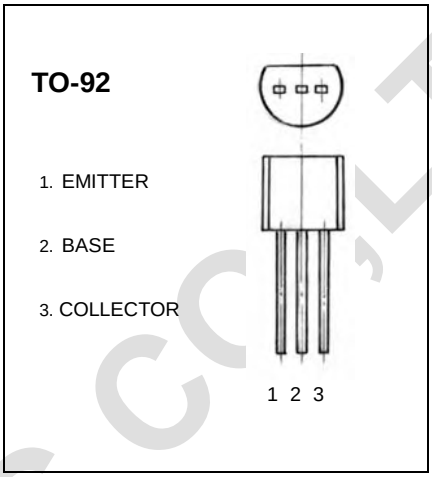
# 2N6517 TRANSISTOR (NPN)




## FEATURES

Power dissipation

$P_{CM}$ : 625 mW (Tamb=25℃)

Collector current

$I_{CM}$ : 500 mA

Collector-base voltage

$V_{(BR)CBO}$ : 350 V

Operating and storage junction temperature range

$T_J$, $T_{stg}$: -55℃ to +150℃

## ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

| Parameter | Symbol | Test conditions | MIN | TYP | MAX | UNIT |
|---|---|---|---|---|---|---|
| **Collector-base breakdown voltage** | $V_{(BR)CBO}$ | Ic=100 μA, $I_E$=0 | 350 | | | V |
| **Collector-emitter breakdown voltage** | $V_{(BR)CEO}$ | Ic=1 mA, $I_B$=0 | 350 | | | V |
| **Emitter-base breakdown voltage** | $V_{(BR)EBO}$ | $I_E$= 10 μA, $I_C$=0 | 6 | | | V |
| **Collector cut-off current** | $I_{CBO}$ | $V_{CB}$=250 V, $I_E$=0 | | | 50 | nA |
| **Emitter cut-off current** | $I_{EBO}$ | $V_{EB}$=5 V, $I_C$=0 | | | 50 | nA |
| **DC current gain** | $h_{FE(1)}$ | $V_{CE}$=10 V, $I_C$=1 mA | 20 | | | |
| | $h_{FE(2)}$ | $V_{CE}$=10 V, $I_C$=10 mA | 30 | | | |
| | $h_{FE(3)}$ | $V_{CE}$=10 V, $I_C$=30 mA | 30 | | 200 | |
| | $h_{FE(4)}$ | $V_{CE}$=10V, $I_C$=50 mA | 20 | | 200 | |
| | $h_{FE(5)}$ | $V_{CE}$=10V, $I_C$=100 mA | 15 | | | |
| **Collector-emitter saturation voltage** | $V_{CE(sat)(1)}$ | $I_C$=10 mA, $I_B$=1 mA | | | 0.3 | V |
| | $V_{CE(sat)(2)}$ | $I_C$=20 mA, $I_B$=2 mA | | | 0.35 | V |
| | $V_{CE(sat)(3)}$ | $I_C$=30 mA, $I_B$=3 mA | | | 0.5 | V |
| | $V_{CE(sat)(4)}$ | $I_C$=50 mA, $I_B$=5 mA | | | 1 | V |
| **Base-emitter saturation voltage** | $V_{BE(sat)(1)}$ | $I_C$=10 mA, $I_B$=1 mA | | | 0.75 | V |
| | $V_{BE(sat)(2)}$ | $I_C$=20 mA, $I_B$=2 mA | | | 0.85 | V |
| | $V_{BE(sat)(3)}$ | $I_C$=30 mA, $I_B$=3 mA | | | 0.9 | V |
| **Base-emitter voltage** | $V_{BE}$ | $V_{CE}$= 20V, $I_C$=10 mA | | | | |
| **Transition frequency** | $f_T$ | $V_{CE}$=10 V, $I_C$=100 mA | 40 | | 200 | MHz |
| **Collector output capacitance** | $C_{ob}$ | $V_{CB}$=20 V, $I_E$=0, f=1 MHz | | | 6 | pF |