# 2SB1185 TRANSISTOR (PNP)

TO-220C

1.BASE
2.COLLECTOR
3.EMITTER

## FEATURES

- Low Collector Saturation Voltage
- Complement to Type 2SD1762

## APPLICATIONS

- For Use in Low Frequency Power Amplifier Applications

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

| Symbol | Parameter | Value | Unit |
|---|---|---|---|
| $V_{CBO}$ | Collector-Base Voltage | -60 | V |
| $V_{CEO}$ | Collector-Emitter Voltage | -50 | V |
| $V_{EBO}$ | Emitter-Base Voltage | -5 | V |
| $I_C$ | Collector Current | -3 | A |
| $P_C$ | Collector Power Dissipation | 2 | W |
| $R_{\theta JA}$ | Thermal Resistance From Junction To Ambient | 63 | ℃/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 | $V_{(BR)CBO}$ | $I_C$=-50μA,$I_E$=0 | -60 | | | V |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C$=-1mA,$I_B$=0 | -50 | | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E$=-50μA,$I_C$=0 | -5 | | | V |
| Collector cut-off current | $I_{CBO}$ | $V_{CB}$=-40V,$I_E$=0 | | | -1 | μA |
| Emitter cut-off current | $I_{EBO}$ | $V_{EB}$=-4V,$I_C$=0 | | | -1 | μA |
| DC current gain | $h_{FE}$* | $V_{CE}$=-3V, $I_C$=-0.5A | 60 | | 320 | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$* | $I_C$=-2A,$I_B$=-0.2A | | | -1 | V |
| Base-emitter saturation voltage | $V_{BE\ (sat)}$* | $I_C$=-2A,$I_B$=-0.2A | | | -1.5 | V |
| Collector output capacitance | $C_{ob}$ | $V_{CB}$=-10V,$I_E$=0, f=1MHz | | 50 | | pF |
| Transition frequency | $f_T$ | $V_{CE}$=-5V,$I_C$=-0.5A, f=30MHz | | 70 | | MHz |

*Pulse test

## CLASSIFICATION OF $h_{FE}$

| RANK | D | E | F |
|---|---|---|---|
| RANGE | 60-120 | 100-200 | 160-320 |