

## 2SB776 TRANSISTOR (PNP)

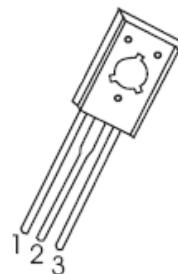
### FEATURES

- High Current Output Up to 3A
- Low Saturation Voltage Power Dissipation

### MAXIMUM RATINGS ( $T_a=25^\circ\text{C}$ 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          | -5      | V                |
| $I_c$     | Collector Current –Continuous | -3      | A                |
| $P_c$     | Collector Power Dissipation   | 1       | W                |
| $T_J$     | Junction Temperature          | 150     | $^\circ\text{C}$ |
| $T_{stg}$ | Storage Temperature           | -55-150 | $^\circ\text{C}$ |

**TO-126**



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

| Parameter                            | Symbol        | Test conditions                            | Min | Typ | Max  | Unit          |
|--------------------------------------|---------------|--|-----|-----|------|---------------|
| Collector-base breakdown voltage     | $V_{(BR)CBO}$ | $I_C=-100\mu\text{A}, I_E=0$               | -50 |     |      | V             |
| Collector-emitter breakdown voltage  | $V_{(BR)CEO}$ | $I_C=-5\text{mA}, I_B=0$                   | -50 |     |      | V             |
| Emitter-base breakdown voltage       | $V_{(BR)EBO}$ | $I_E=-100\mu\text{A}, I_C=0$               | -5  |     |      | V             |
| Collector cut-off current            | $I_{CBO}$     | $V_{CB}=-50\text{V}, I_E=0$                |     |     | -1   | $\mu\text{A}$ |
| Emitter cut-off current              | $I_{EBO}$     | $V_{EB}=-3\text{V}, I_C=0$                 |     |     | -1   | $\mu\text{A}$ |
| DC current gain                      | $h_{FE(1)}$   | $V_{CE}=-2\text{V}, I_C=-20\text{mA}$      | 100 |     |      |               |
|                                      | $h_{FE(2)}$   | $V_{CE}=-2\text{V}, I_C=-1\text{A}$        | 100 |     | 400  |               |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=-2\text{A}, I_B=-200\text{mA}$        |     |     | -0.5 | V             |
| Base-emitter saturation voltage      | $V_{BE(sat)}$ | $I_C=-2\text{A}, I_B=-200\text{mA}$        |     |     | -2   | V             |
| Transition frequency                 | $f_T$         | $V_{CE}=-5\text{V}, I_C=-100\text{mA}$     |     | 80  |      | MHz           |
| Collector output capacitance         | $C_{ob}$      | $V_{CB}=-10\text{V}, I_E=0, f=1\text{MHz}$ |     | 45  |      | pF            |