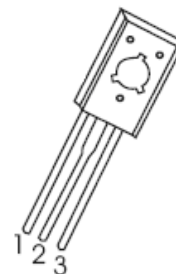
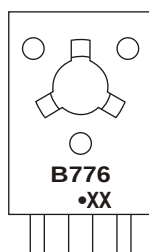


**TO-126 Plastic-Encapsulate Transistors****2SB776** TRANSISTOR (PNP)**FEATURES**

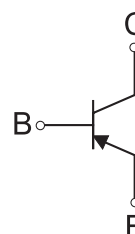
- High Current Output Up to 3A
- Low Saturation Voltage Power Dissipation

**TO-126**

1. EMITTER  
2. COLLECTOR  
3. BASE

**MARKING**

B776=Device code  
Solid dot= Green molding compound device, if none, the normal device  
XX=Code

**Equivalent Circuit****ORDERING INFORMATION**

| Part Number | Package | Packing Method | Pack Quantity |
|-------------|---------|----------------|---------------|
| 2SB776      | TO-126  | Bulk           | 200pcs/Bag    |
| 2SB776-TU   | TO-126  | Tube           | 60pcs/Tube    |

**MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted )**

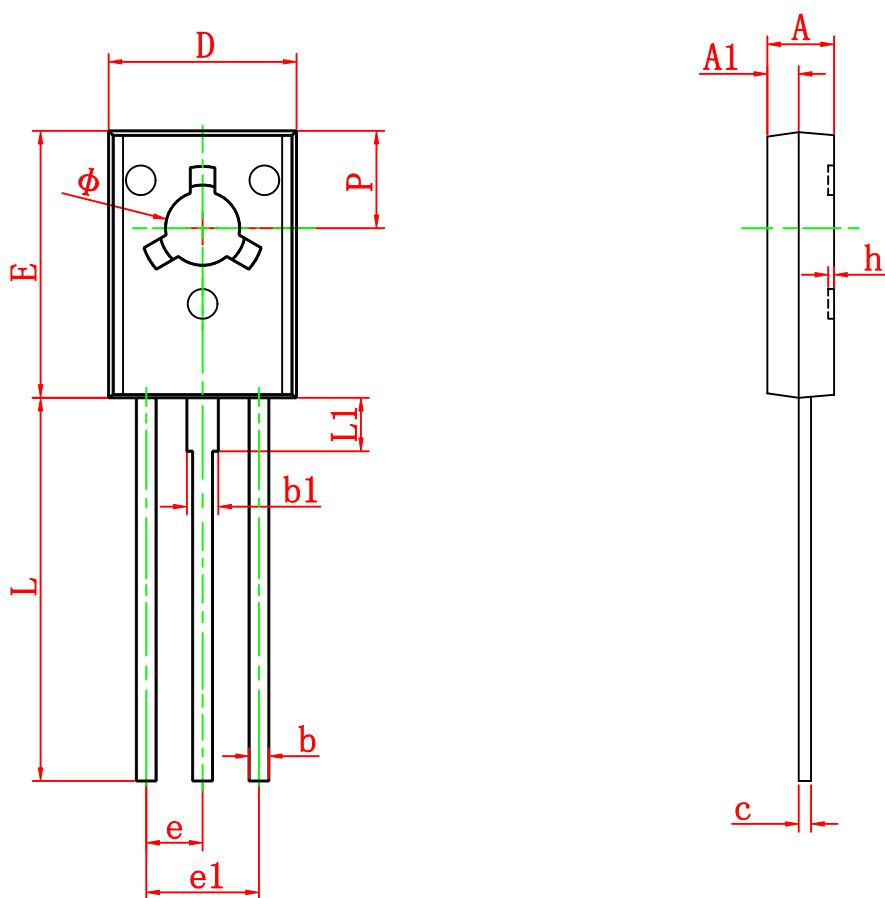
| Symbol                            | Parameter                                        | Value   | Unit |
|-----------------------------------|--------------------------------------------------|---------|------|
| V <sub>CBO</sub>                  | Collector-Base Voltage                           | -50     | V    |
| V <sub>CEO</sub>                  | Collector-Emitter Voltage                        | -50     | V    |
| V <sub>EBO</sub>                  | Emitter-Base Voltage                             | -5      | V    |
| I <sub>C</sub>                    | Collector Current –Continuous                    | -3      | A    |
| P <sub>C</sub>                    | Collector Power Dissipation                      | 1       | W    |
| T <sub>J</sub> , T <sub>stg</sub> | Operation Junction and Storage Temperature Range | -55-150 | °C   |

## 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            |

## TO-126 Package Outline Dimensions



| Symbol | Dimensions In Millimeters |        | Dimensions In Inches |       |
|--------|---------------------------|--------|----------------------|-------|
|        | Min                       | Max    | Min                  | Max   |
| A      | 2.500                     | 2.900  | 0.098                | 0.114 |
| A1     | 1.100                     | 1.500  | 0.043                | 0.059 |
| b      | 0.660                     | 0.860  | 0.026                | 0.034 |
| b1     | 1.170                     | 1.370  | 0.046                | 0.054 |
| c      | 0.450                     | 0.600  | 0.018                | 0.024 |
| D      | 7.400                     | 7.800  | 0.291                | 0.307 |
| E      | 10.600                    | 11.000 | 0.417                | 0.433 |
| e      | 2.290 TYP                 |        | 0.090 TYP            |       |
| e1     | 4.480                     | 4.680  | 0.176                | 0.184 |
| h      | 0.000                     | 0.300  | 0.000                | 0.012 |
| L      | 15.300                    | 15.700 | 0.602                | 0.618 |
| L1     | 2.100                     | 2.300  | 0.083                | 0.091 |
| P      | 3.900                     | 4.100  | 0.154                | 0.161 |
| Φ      | 3.000                     | 3.200  | 0.118                | 0.126 |