

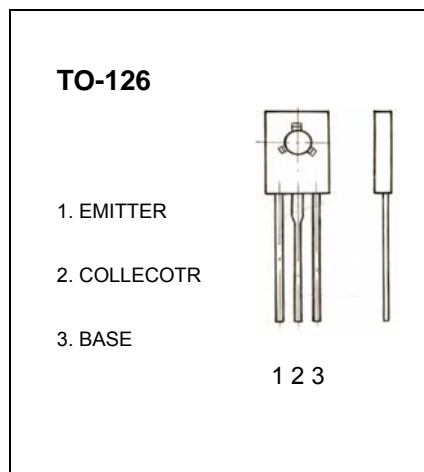


## TO-126 Plastic-Encapsulate Transistors

### 2SC1162 TRANSISTOR (NPN)

#### FEATURES

Low frequency power amplifier



#### MAXIMUM RATINGS ( $T_A=25^{\circ}\text{C}$ unless otherwise noted)

| Symbol    | Parameter                     | Value   | Units              |
|-----------|-------------------------------|---------|--------------------|
| $V_{CBO}$ | Collector-Emitter Voltage     | 35      | V                  |
| $V_{CEO}$ | Collector-Emitter Voltage     | 35      | V                  |
| $V_{EBO}$ | Emitter-Base Voltage          | 5       | V                  |
| $I_C$     | Collector Current -Continuous | 2.5     | A                  |
| $P_C$     | Collector Power Dissipation   | 0.75    | W                  |
| $T_J$     | Junction Temperature          | 150     | $^{\circ}\text{C}$ |
| $T_{stg}$ | Storage Temperature           | -55-150 | $^{\circ}\text{C}$ |

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

| Parameter                            | Symbol        | Test conditions                       | MIN | TYP | MAX | UNIT          |
|--------------------------------------|---------------|---------------------------------------|-----|-----|-----|---------------|
| Collector-base breakdown voltage     | $V_{(BR)CBO}$ | $I_C=1\text{mA}, I_E=0$               | 35  |     |     | V             |
| Collector-emitter breakdown voltage  | $V_{(BR)CEO}$ | $I_C=10\text{mA}, I_B=0$              | 35  |     |     | V             |
| Emitter-base breakdown voltage       | $V_{(BR)EBO}$ | $I_E=1\text{mA}, I_C=0$               | 5   |     |     | V             |
| Collector cut-off current            | $I_{CBO}$     | $V_{CB}=35\text{V}, I_E=0$            |     |     | 20  | $\mu\text{A}$ |
| Emitter cut-off current              | $I_{EBO}$     | $V_{EB}=5\text{V}, I_C=0$             |     |     | 20  | $\mu\text{A}$ |
| DC current gain                      | $h_{FE1}$     | $V_{CE}=2\text{V}, I_C=0.5\text{A}$   | 60  |     | 320 |               |
|                                      | $h_{FE2}$     | $V_{CE}=2\text{V}, I_C=1.5\text{A}^*$ | 20  |     |     |               |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=2\text{A}, I_B=200\text{mA}$     |     |     | 1   | V             |
| Base-collector voltage               | $V_{BE}$      | $V_{CE}=2\text{V}, I_C=1.5\text{A}$   |     |     | 1.5 | V             |
| Transition frequency                 | $f_T$         | $V_{CE}=2\text{V}, I_C=200\text{mA}$  |     | 180 |     | MHz           |

\* pulse test

#### CLASSIFICATION OF $h_{FE1}$

| Rank  | B      | C       | D       |
|-------|--------|---------|---------|
| Range | 60-120 | 100-200 | 160-320 |

# Typical Characteristics

2SC1162

