

isc Silicon PNP Power Transistor
2SB772
DESCRIPTION

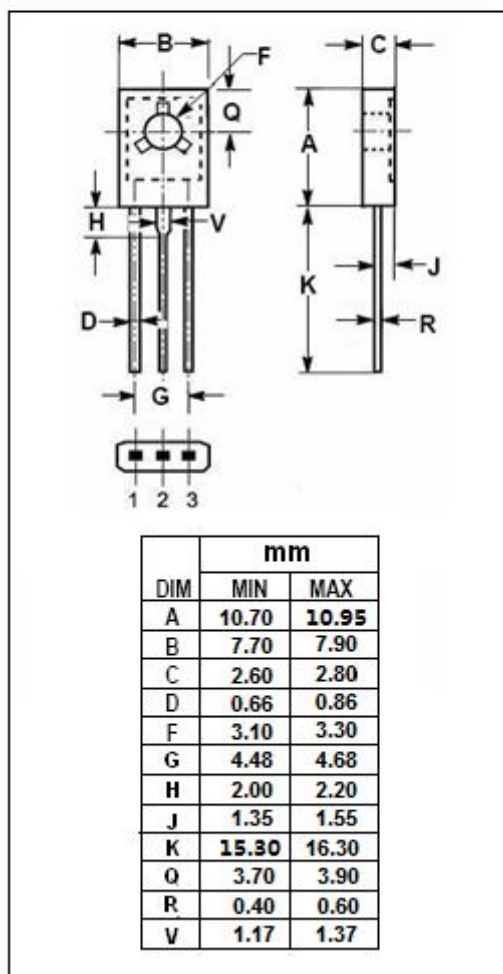
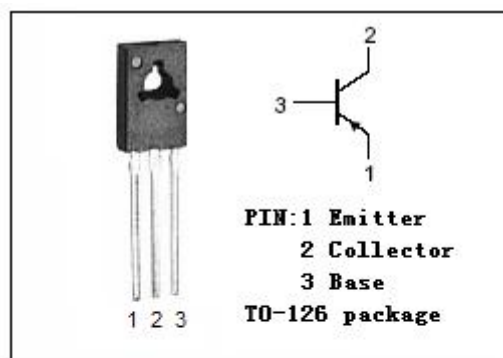
- High Collector Current $-I_C = -3A$
- High Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = -30V(\text{Min})$
- Good Linearity of h_{FE}
- Low Saturation Voltage
- Complement to Type 2SD882
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use in the output stage of 3 watts audio amplifier, voltage regulator, DC-DC converter and relay driver.

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|--|---------|------------------|
| V_{CBO} | Collector-Base Voltage | -40 | V |
| V_{CEO} | Collector-Emitter Voltage | -30 | V |
| V_{EBO} | Emitter-Base Voltage | -5 | V |
| I_C | Collector Current-Continuous | -3 | A |
| I_{CP} | Collector Current-Pulse | -7 | A |
| P_C | Collector Power Dissipation @ $T_C=25^\circ\text{C}$ | 10 | W |
| | Collector Power Dissipation @ $T_a=25^\circ\text{C}$ | 1 | |
| T_J | Junction Temperature | 150 | $^\circ\text{C}$ |
| T_{stg} | Storage Temperature Range | -55~150 | $^\circ\text{C}$ |



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ELECTRICAL CHARACTERISTICS
 $T_C=25^\circ\text{C}$ unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|---------------|--------------------------------------|--|-----|------|------|---------------|
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C = -2A; I_B = -0.2A$ | | | -0.5 | V |
| $V_{BE(sat)}$ | Base-Emitter Saturation Voltage | $I_C = -2A; I_B = -0.2A$ | | | -2.0 | V |
| I_{CBO} | Collector Cutoff Current | $V_{CB} = -30V; I_E = 0$ | | | -1.0 | μA |
| I_{EBO} | Emitter Cutoff Current | $V_{EB} = -3V; I_C = 0$ | | | -1.0 | μA |
| h_{FE-1} | DC Current Gain | $I_C = -20\text{mA}; V_{CE} = -2V$ | 30 | | | |
| h_{FE-2} | DC Current Gain | $I_C = -1A; V_{CE} = -2V$ | 60 | | 400 | |
| f_T | Current-Gain—Bandwidth Product | $I_C = -0.1A; V_{CE} = -5V$ | | 80 | | MHZ |
| C_{OB} | Output Capacitance | $I_E = 0; V_{CB} = -10V, f_{test} = 1\text{MHz}$ | | 55 | | pF |

◆ h_{FE-2} Classifications

| R | Q | P | E |
|--------|---------|---------|---------|
| 60-120 | 100-200 | 160-320 | 200-400 |

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