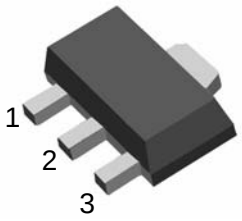
# SOT-89 Plastic-Encapsulate Transistors

**B772** TRANSISTOR (PNP)

**SOT-89**

1. BASE
2. COLLETOR
3. EMITTER




**FEATURES**

Power dissipation

$P_{CM:}$ 500 mW (Tamb=25℃)

Collector current

$I_{CM:}$ -3 A

Collector-base voltage

$V_{(BR)CBO:}$ -40 V

Operating and storage junction temperature range

$T_J$, $T_{stg}$: -55℃ to +150℃

**ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)**

**CLASSIFICATION OF $h_{FE(1)}$**

| Parameter | Symbol | Test conditions | MIN | TYP | MAX | UNIT |
|---|---|---|---|---|---|---|
| **Collector-base breakdown voltage** | $V(BR)_{CBO}$ | Ic=-100μA , $I_E$=0 | -40 | | | V |
| **Collector-emitter breakdown voltage** | $V(BR)_{CEO}$ | $I_C$= -10 mA , $I_B$=0 | -30 | | | V |
| **Emitter-base breakdown voltage** | $V(BR)_{EBO}$ | $I_E$= -100 μA, $I_C$=0 | -6 | | | V |
| **Collector cut-off current** | $I_{CBO}$ | $V_{CB}$= -40 V, $I_E$=0 | | | -1 | μA |
| **Collector cut-off current** | $I_{CEO}$ | $V_{CE}$=-30 V, $I_B$=0 | | | -10 | μA |
| **Emitter cut-off current** | $I_{EBO}$ | $V_{EB}$=-6V, $I_C$=0 | | | -1 | μA |
| **DC current gain** | $h_{FE(1)}$ | $V_{CE}$= -2V, $I_C$= -1A | 60 | | 400 | |
| | $h_{FE(2)}$ | $V_{CE}$=-2V, $I_C$= -100mA | 32 | | | |
| **Collector-emitter saturation voltage** | $V_{CE}$(sat) | $I_C$=-2A, $I_B$= -0.2A | | | -0.5 | V |
| **Base-emitter saturation voltage** | $V_{BE}$(sat) | $I_C$=-2A, $I_B$= -0.2A | | | -1.5 | V |
| **Transition frequency** | $f_T$ | $V_{CE}$= -5V, $_C$=-0.1A<br>f = 10MHz | 50 | | | MHz |

**CLASSIFICATION OF $h_{FE(1)}$**

| Rank | R | O | Y | GR |
|---|---|---|---|---|
| Range | 60-120 | 100-200 | 160-320 | 200-400 |

## Typical characteristics

B772