

B772 Transistor(PNP)

Feature

- Low Speed Switching

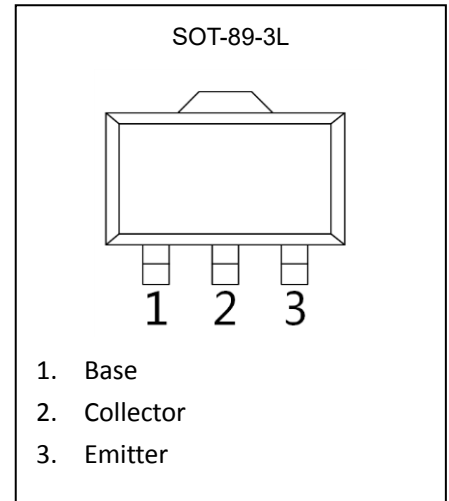
Marking: B772

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

| Parameter | Symbol | Value | Unit |
|---|-----------|-----------|--------------------|
| Collector-Base Voltage | V_{CB0} | -40 | V |
| Collector-Emitter Voltage | V_{CE0} | -30 | V |
| Emitter-Base Voltage | V_{EB0} | -6 | V |
| Collector Current -Continuous | I_C | -3 | A |
| Collector Power Dissipation ¹⁾ | P_C | 0.5 | W |
| Collector Power Dissipation ²⁾ | P_C | 2.0 | W |
| Junction Temperature | T_J | 150 | $^{\circ}\text{C}$ |
| Storage Temperature | T_{STG} | -55~ +150 | $^{\circ}\text{C}$ |

1) Device mounted on an FR4 PCB, single-sided 1oz copper, tin-plated, mounting pad for collector 1 cm².

2) Device mounted on an FR4 PCB, single-sided 2oz copper, tin-plated, mounting pad for collector 25 cm².



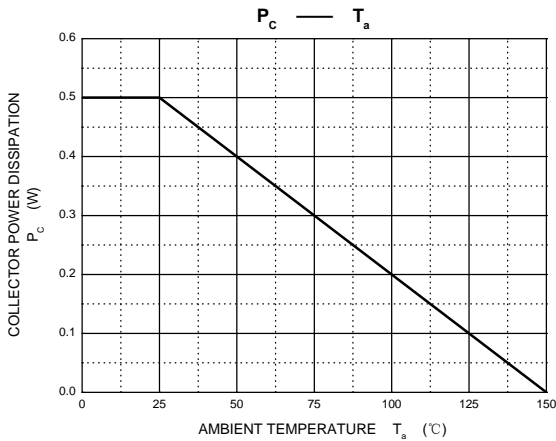
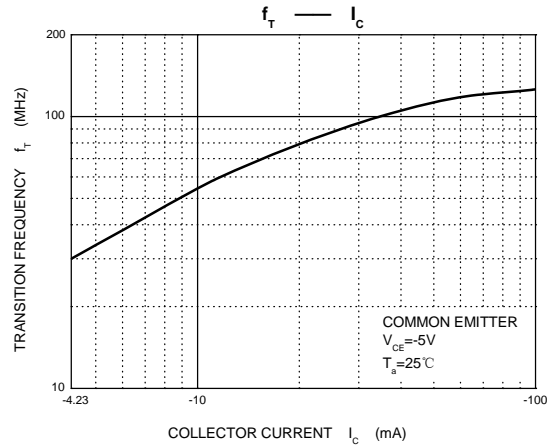
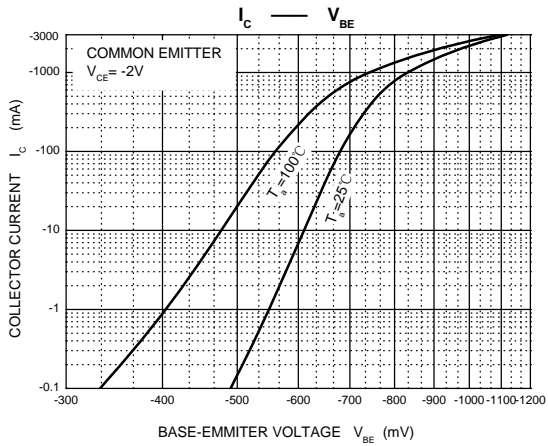
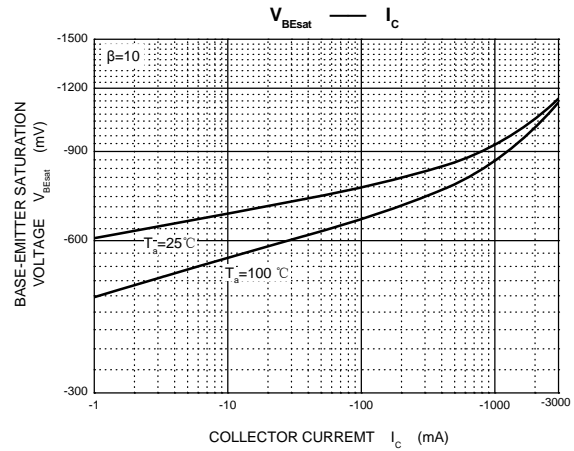
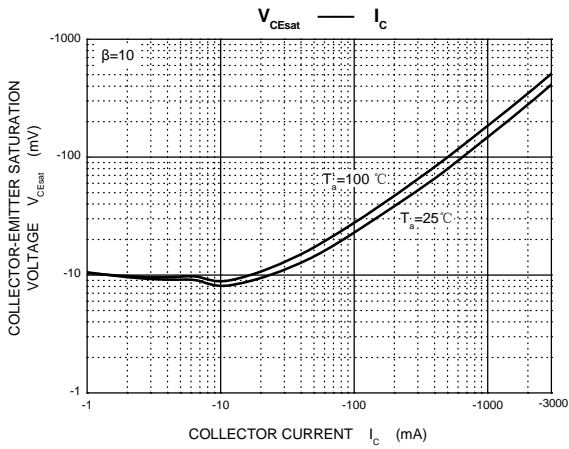
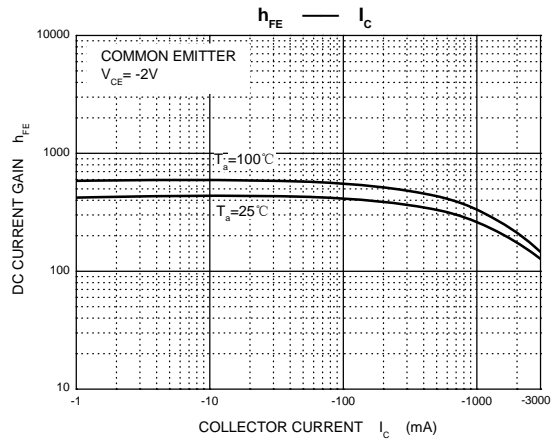
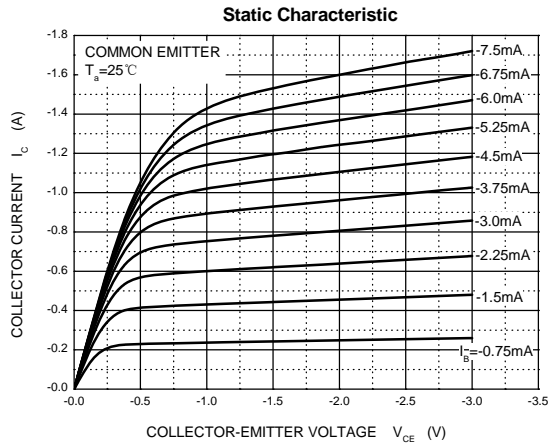
ELECTRICAL CHARACTERISTICS($T_A=25^{\circ}\text{C}$ unless otherwise noted)

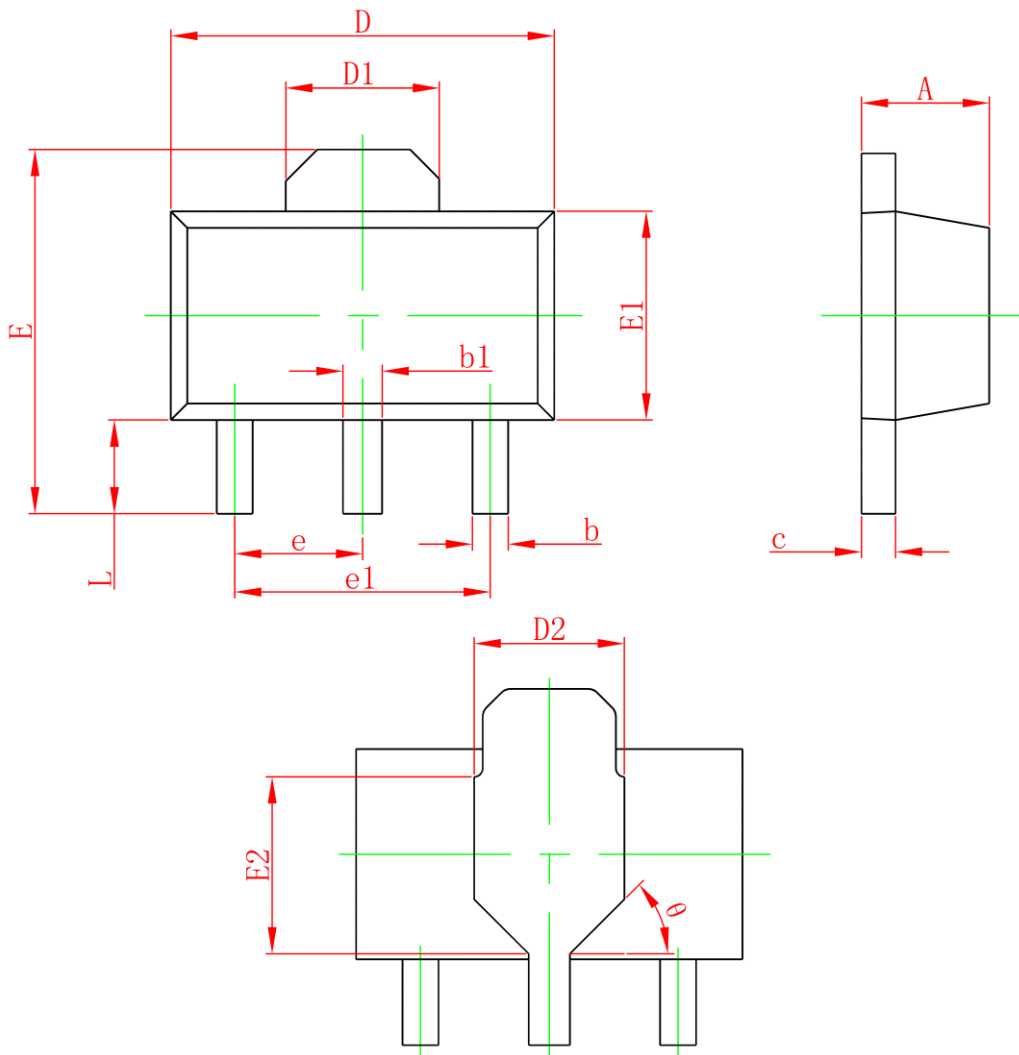
| Parameter | Symbol | Test Condition | Min | Max | Unit |
|--------------------------------------|---------------|---|-----|------|---------------|
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | $I_C=-100\mu\text{A}, I_E=0$ | -40 | | V |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C=-10\text{mA}, I_B=0$ | -30 | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E=-100\mu\text{A}, I_C=0$ | -6 | | V |
| Collector cut-off current | I_{CBO} | $V_{CB}=-40\text{V}, I_E=0$ | | -1 | μA |
| Collector cut-off current | I_{CEO} | $V_{CE}=-30\text{V}, I_B=0$ | | -10 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB}=-6\text{V}, I_C=0$ | | -1 | μA |
| DC current gain | h_{FE} | $V_{CE}=-2\text{V}, I_C=-1\text{A}$ | 60 | 400 | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=-2\text{A}, I_B=-0.2\text{A}$ | | -0.5 | V |
| Base-emitter saturation voltage | $V_{BE(sat)}$ | $I_C=-2\text{A}, I_B=-0.2\text{A}$ | | -1.5 | V |
| Transition frequency | f_T | $V_{CE}=-5\text{V}, I_C=-0.1\text{A}, f=10\text{MHz}$ | 50 | | MHz |

CLASSIFICATION OF h_{FE}

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

Typical Characteristics



SOT-89-3L Package Information


| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|-------|----------------------|-------|
| | Min. | Max. | Min. | Max. |
| A | 1.400 | 1.600 | 0.055 | 0.063 |
| b | 0.320 | 0.520 | 0.013 | 0.020 |
| b1 | 0.380 | 0.580 | 0.015 | 0.023 |
| c | 0.350 | 0.500 | 0.014 | 0.020 |
| D | 4.400 | 4.600 | 0.173 | 0.181 |
| D1 | 1.650REF | | 0.065REF | |
| D2 | 1.650 | 1.850 | 0.065 | 0.073 |
| E | 3.900 | 4.400 | 0.154 | 0.173 |
| E1 | 2.300 | 2.600 | 0.091 | 0.102 |
| E2 | 1.900REF | | 0.075REF | |
| e | 1.500TYP | | 0.059TYP | |
| e1 | 3.000TYP | | 0.118TYP | |
| L | 0.900 | 1.200 | 0.035 | 0.047 |
| θ | 45° | | 45° | |