

## / Descriptions

Silicon PNP transistor in a TO-251 Plastic Package.

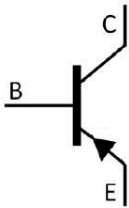
## / Features

Low saturation voltage, excellent  $h_{FE}$  linearity and high  $h_{FE}$ .

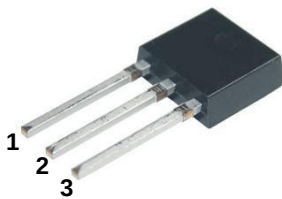
## / Applications

Output stage of 3 watts audio amplifier, voltage regulator, DC-DC converter and relay driver.

## / Equivalent Circuit



## / Pinning



PIN1    Base            PIN 2    Collector            PIN 3    Emitter

## / $h_{FE}$ Classifications & Marking

| $h_{FE}$ Classifications<br>Symbol | R         | Q          | P          | E          |
|------------------------------------|-----------|------------|------------|------------|
| $h_{FE}$ Range                     | 60    120 | 100    200 | 160    320 | 200    400 |

**/ Absolute Maximum Ratings(Ta=25 )**

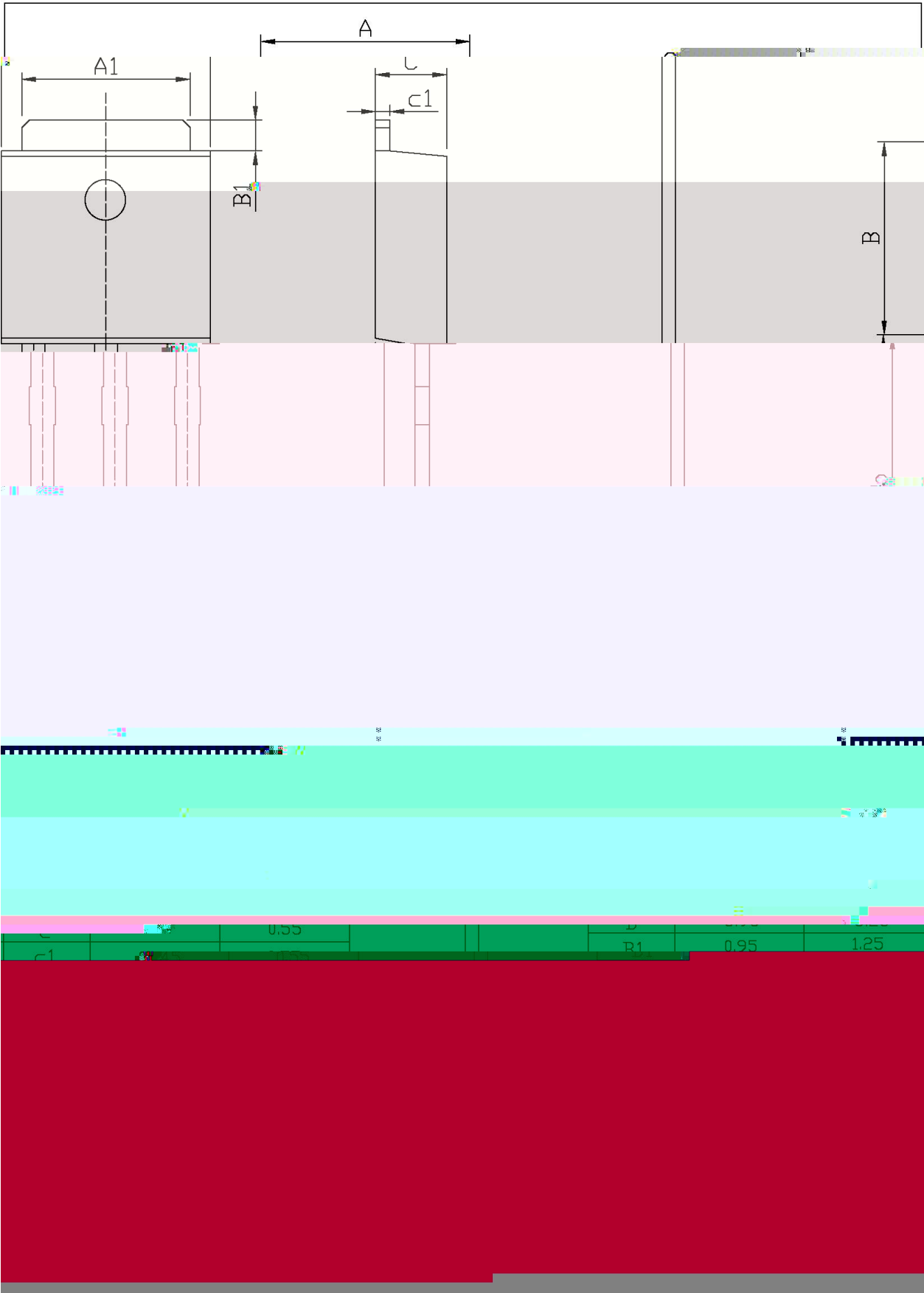
| Parameter                      | Symbol                 | Rating  | Unit        |
|--------------------------------|------------------------|---------|-------------|
| Collector to Base Voltage      | $V_{CBO}$              | -40     | V           |
| Collector to Emitter Voltage   | $V_{CEO}$              | -30     | V           |
| Emitter to Base Voltage        | $V_{EBO}$              | -5.0    | V           |
| Collector Current - Continuous | $I_C$                  | -3.0    | A           |
| Collector Power Dissipation    | $P_C$                  | 1.0     | W           |
| Collector Power Dissipation    | $P_C(T_C=25^{\circ}C)$ | 10      | W           |
| Junction Temperature           | $T_J$                  | 150     | $^{\circ}C$ |
| Storage Temperature Range      | $T_{stg}$              | -55 150 | $^{\circ}C$ |

**/ Electrical Characteristics(Ta=25 )**

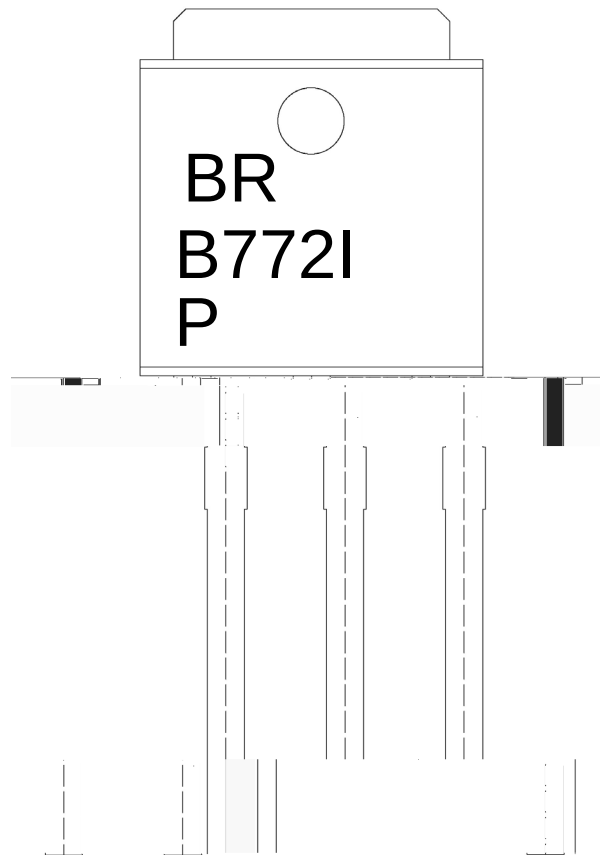
| Parameter                               | Symbol        | Test Conditions                  | Min | Typ  | Max  | Unit    |
|-----------------------------------------|---------------|----------------------------------|-----|------|------|---------|
| Collector Cut-Off Current               | $I_{CBO}$     | $V_{CB}=-30V$ $I_E=0$            |     |      | -1.0 | $\mu A$ |
| Emitter Cut-Off Current                 | $I_{EBO}$     | $V_{EB}=-3.0V$ $I_C=0$           |     |      | -1.0 | $\mu A$ |
| DC Current Gain                         | $h_{FE(1)}$   | $V_{CE}=-2.0V$ $I_C=-1.0A$       | 60  | 160  | 400  |         |
|                                         | $h_{FE(2)}$   | $V_{CE}=-2.0V$ $I_C=-20mA$       | 30  | 220  |      |         |
| Collector to Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=-2.0A$ $I_B=-0.2A$          |     | -0.3 | -0.5 | V       |
| Base to Emitter Saturation Voltage      | $V_{BE(sat)}$ | $I_C=-2.0A$ $I_B=-0.2A$          |     | -1.0 | -2.0 | V       |
| Transition Frequency                    | $f_T$         | $I_C=-0.1A$ $V_{CE}=-5.0V$       |     | 80   |      | MHz     |
| Collector output capacitance            | $C_{ob}$      | $V_{CB}=-10V$ $I_E=0$ $f=1.0MHz$ |     | 55   |      | pF      |



/ Package Dimensions



**/ Marking Instructions**



Note:

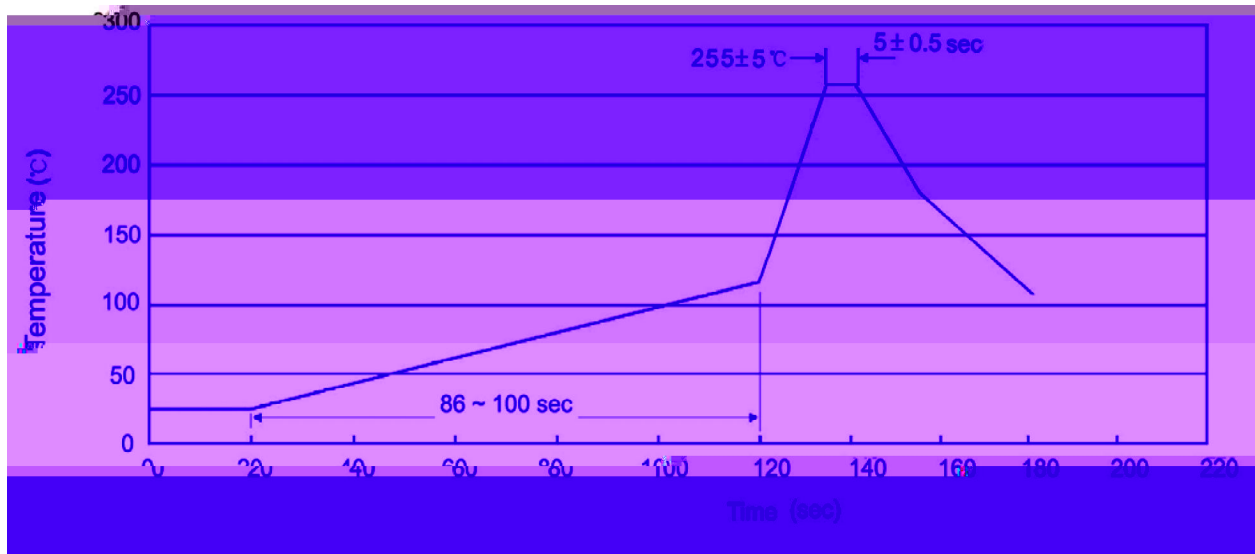
BR: Company Code

B772I: Product Type.

P:  $h_{FE}$  Classifications Symbol

\*\*\*: Lot No. Code, code change with Lot No.

( ) / Temperature Profile for Dip Soldering(Pb-Free)



Note:

- |   |     |     |    |          |                                         |
|---|-----|-----|----|----------|-----------------------------------------|
| 1 | 25  | 150 | 60 | 90sec;   | 1.Preheating:25~150 , Time:60~90sec.    |
| 2 | 255 | 5   | 5  | 0.5sec;  | 2.Peak Temp.:255 5 , Duration:5 0.5sec. |
| 3 |     |     | 2  | 10 /sec. | 3. Cooling Speed: 2~10 /sec.            |

/ Resistance to Soldering Heat Test Conditions

270 5      10 1 sec.      Temp.:270±5℃      Time:10±1 sec

/ Packaging SPEC.

/ BULK

Package Type      Units 包装数量  
封装形式