

/ Descriptions

TO-126F PNP Silicon PNP transistor in a TO-126F Plastic Package.

/ Features

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

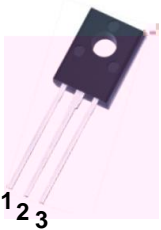
/ Applications

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

/ Equivalent Circuit



/ Pinning



PIN1 Emitter PIN 2 Collector PIN 3 Base

/ h_{FE} Classifications & Marking

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

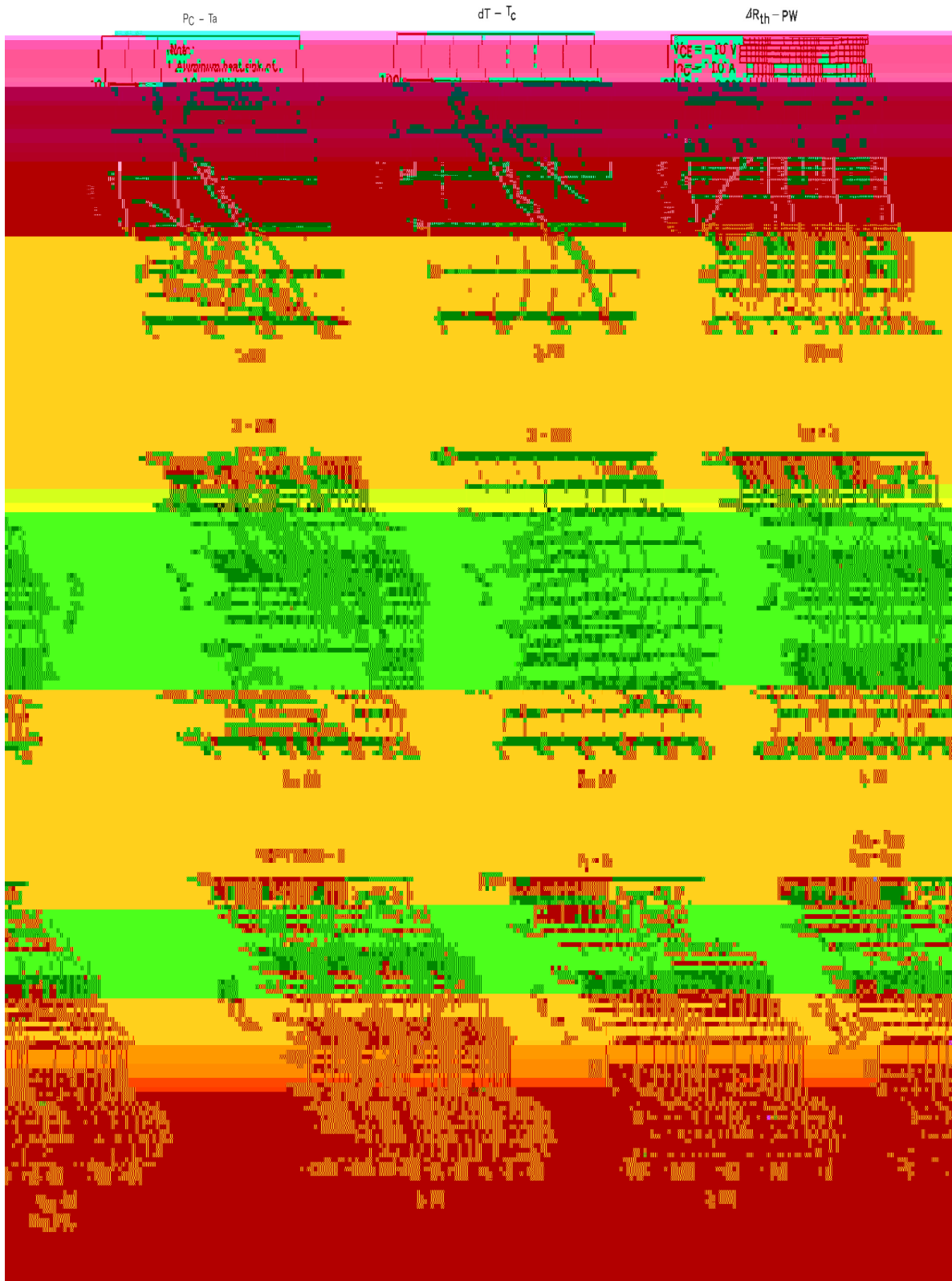
/ Absolute Maximum Ratings(Ta=25)

| 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 |
| Peak Collector Current – Continuous | I_{CP} | -7.0 | A |
| Collector Power Dissipation | P_C | 1.0 | W |
| | $P_C(T_C=25)$ | 10 | W |
| Junction Temperature | T_j | 150 | |
| Storage Temperature Range | T_{stg} | -55 150 | |

/ 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 | μA |
| Emitter Cut-Off Current | I_{EBO} | $V_{EB}=-3.0V$ $I_C=0$ | | | -1.0 | μA |
| 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 | $V_{CE}=-5.0V$ $I_C=-0.1A$ | | 80 | | MHz |
| Output Capacitance | C_{ob} | $V_{CB}=-10V$ $I_E=0$ $f=1.0MHz$ | | 55 | | pF |

/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



BR

B772

R: h_{FE}

Note:

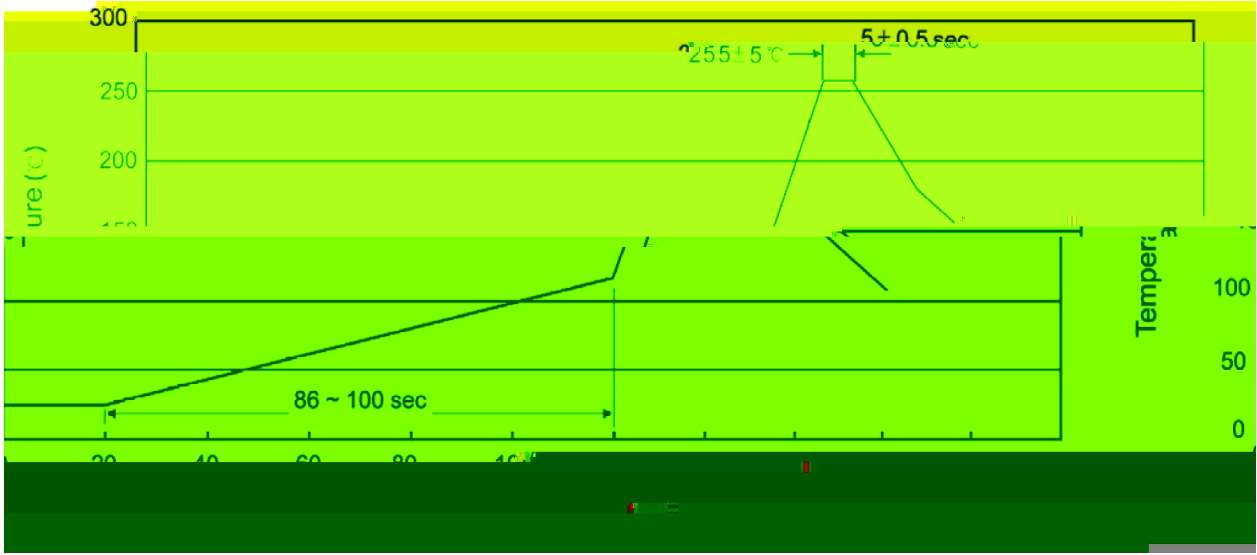
BR: Company Code

B772: Product Type.

R: 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±0.5 | sec; | 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