

## / Descriptions

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

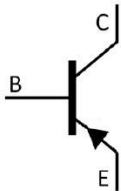
## / Features

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

## / Applications

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

## / Equivalent Circuit



## / Pinning



PIN1 Emitter      PIN 2 Collector      PIN 3 Base

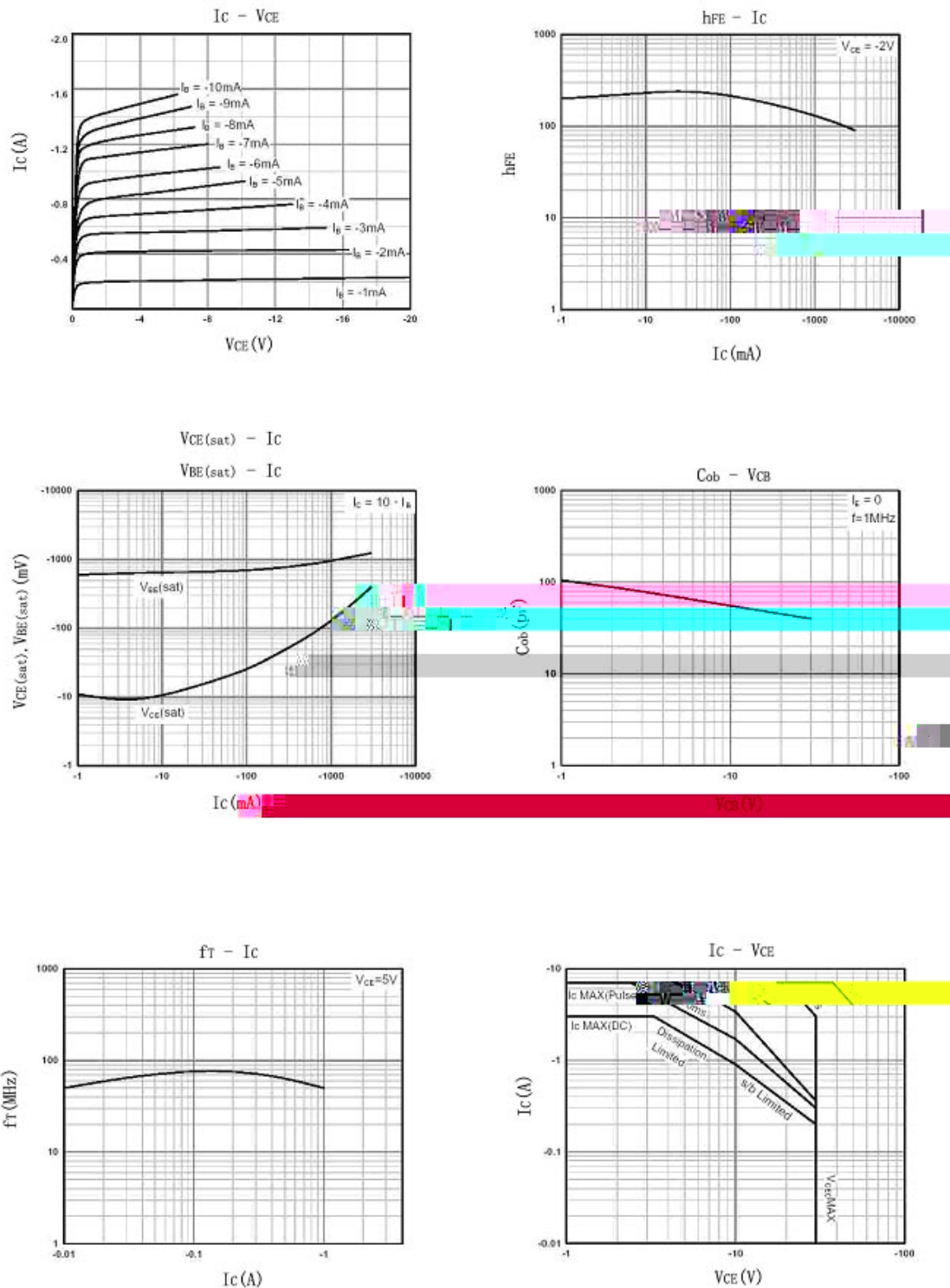
## / $h_{FE}$ Classifications & Marking

| $h_{FE}$ Classifications<br>Symbol | R      | O       | Y       | G       |
|------------------------------------|--------|---------|---------|---------|
| $h_{FE}$ Range                     | 60~120 | 100~200 | 160~320 | 200~400 |

| 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    |
| Base Current – Continuous      | $I_B$                       | -0.6    | A    |
| Collector Power Dissipation    | $P_C$                       | 1.0     | W    |
| Collector Power Dissipation    | $P_C(T_C=25^\circ\text{C})$ | 10      | W    |
| Junction Temperature           | $T_j$                       | 150     |      |
| Storage Temperature Range      | $T_{stg}$                   | -55~150 |      |

| Parameter                               | Symbol        | Test Conditions            | Min | Typ  | Max  | Unit |
|-----------------------------------------|---------------|----------------------------|-----|------|------|------|
| Collector Cut-Off Current               | $I_{CBO}$     | $V_{CB}=-30V$ $I_E=0$      |     |      | -1.0 | A    |
| Emitter Cut-off Current                 | $I_{EBO}$     | $V_{EB}=-3.0V$ $I_C=0$     |     |      | -1.0 | 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    |

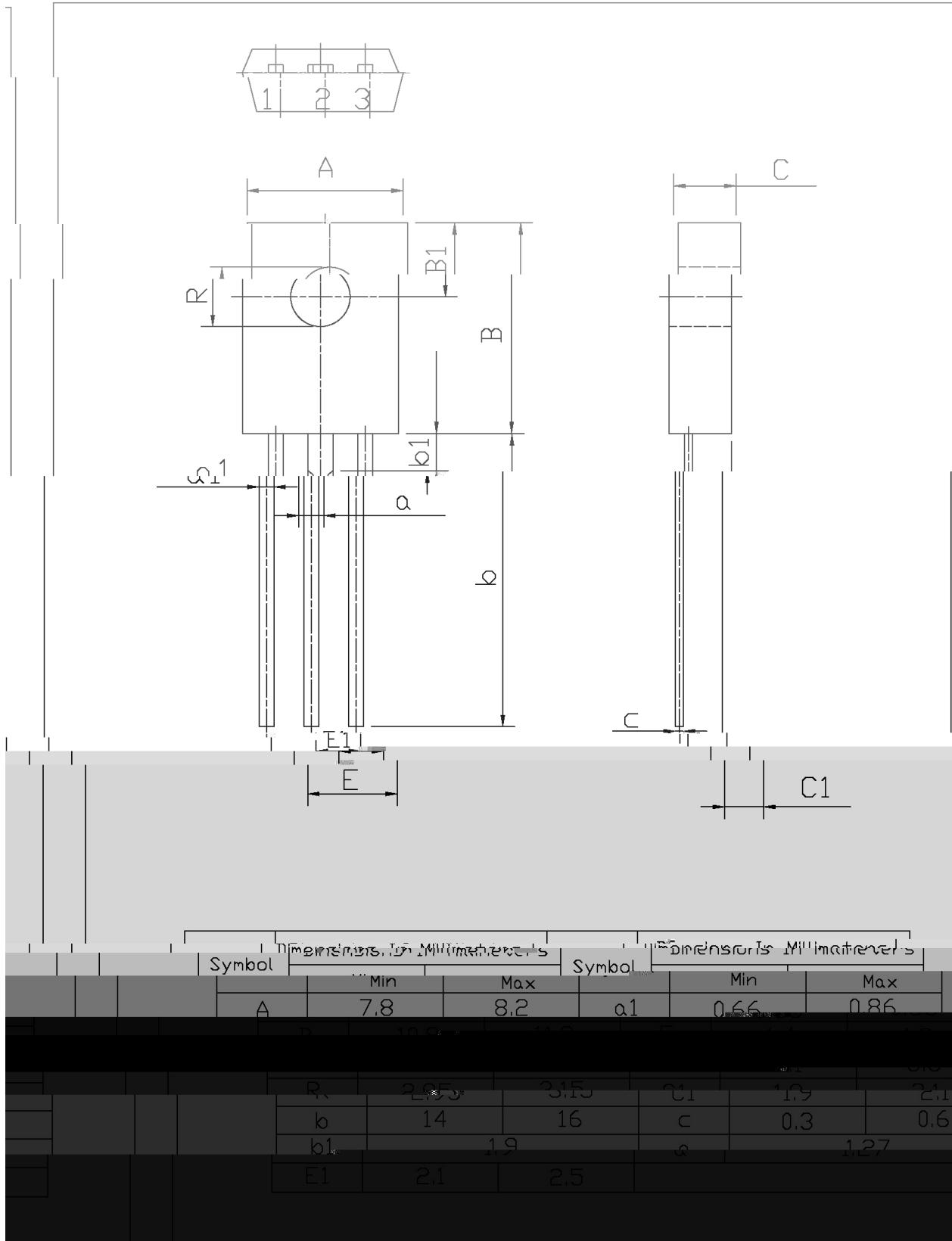
/ **Electrical Characteristic Curve**



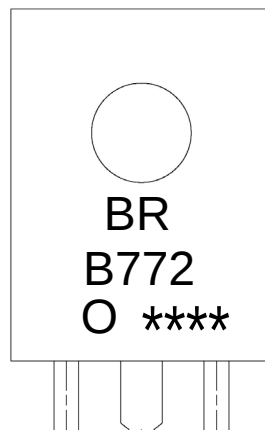
/ Package Dimensions

14-126T

单位: mm



/ Marking Instructions



Note:

BR: Company Code

B772: Product Type.

O:  $h_{FE}$  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<br>封装形式 | Units 包装数量         |                         |                        |                              |                        | Dimension 包装尺寸 (unit: mm <sup>3</sup> ) |             |             |
|----------------------|--------------------|-------------------------|------------------------|------------------------------|------------------------|-----------------------------------------|-------------|-------------|
|                      | Units/Tube<br>只/套管 | Tubes/Inner Box<br>套管/盒 | Units/Inner Box<br>只/盒 | Inner Boxes/Outer Box<br>盒/箱 | Units/Outer Box<br>只/箱 | Tube 套管                                 | Inner Box 盒 | Outer Box 箱 |
| TO-126/F             | 500                | 6                       | 3,000                  | 5                            | 15,000                 | 135×190                                 | 237×172×102 | 560×245×195 |

/ TUBE

| Package Type<br>封装形式 | Units 包装数量         |                         |                        |                              |                        | Dimension 包装尺寸 (unit: mm <sup>3</sup> ) |             |             |
|----------------------|--------------------|-------------------------|------------------------|------------------------------|------------------------|-----------------------------------------|-------------|-------------|
|                      | Units/Tube<br>只/套管 | Tubes/Inner Box<br>套管/盒 | Units/Inner Box<br>只/盒 | Inner Boxes/Outer Box<br>盒/箱 | Units/Outer Box<br>只/箱 | Tube 套管                                 | Inner Box 盒 | Outer Box 箱 |
| TO-126/F             | 65                 | 26                      | 1,690                  | 5                            | 8,450                  | 532×31×5.6                              | 555×164×50  | 575×290×180 |