## 描述 / Descriptions

TO-126F 塑封封装 PNP 半导体三极管。Silicon PNP transistor in a TO-126F Plastic Package.

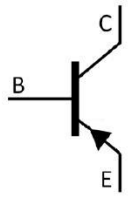
## 特征 / Features

饱和压降低；直流电增益高。
Low saturation voltage, high DC current gain.

## 用途 / Applications

用于音频放大及开关电路中。
Audio frequency power amplifier and switching applications.

## 内部等效电路 / Equivalent Circuit




## 引脚排列 / Pinning




PIN1：Emitter　　PIN 2：Collector　　PIN 3：Base

## 放大及印章代码 / $h_{FE}$ Classifications & Marking

见印章说明。See Marking Instructions.

## 极限参数 / Absolute Maximum Ratings(Ta=25℃)

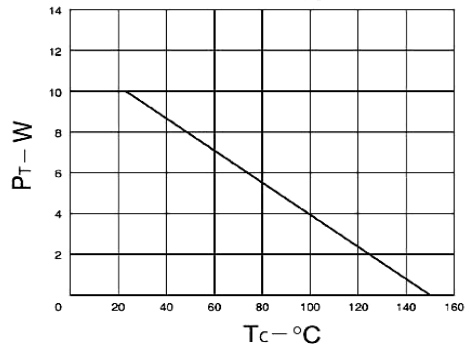
| 参数 Parameter | 符号 Symbol | 数值 Rating | 单位 Unit |
|---|---|---|---|
| Collector to Base Voltage | $V_{CBO}$ | -30 | V |
| Collector to Emitter Voltage | $V_{CEO}$ | -30 | V |
| Emitter to Base Voltage | $V_{EBO}$ | -6.0 | V |
| Collector Current - Continuous | $I_C$ | -5.0 | A |
| Collector Current – Continuous(Pulse) | $I_{CP}$ | -10 | A |
| Base Current - Continuous | $I_B$ | -2.0 | A |
| Collector Power Dissipation | $P_C$ | 1.0 | W |
| Collector Power Dissipation | $P_C$ ($T_c$=25℃) | 10 | W |
| Junction Temperature | $T_j$ | 150 | ℃ |
| Storage Temperature Range | $T_{stg}$ | -55～150 | ℃ |

## 电性能参数 / Electrical Characteristics(Ta=25℃)

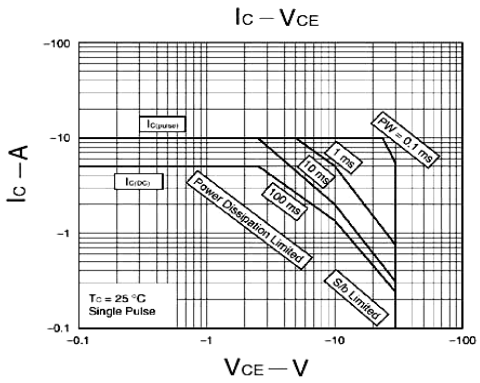
| 参数 Parameter | 符号 Symbol | 测试条件 Test Conditions | 最小值 Min | 典型值 Typ | 最大值 Max | 单位 Unit |
|---|---|---|---|---|---|---|
| Collector Cut-Off Current | $I_{CBO}$ | $V_{CB}$=-30V $I_E$=0 | | | -0.1 | μA |
| Emitter Cut-Off Current | $I_{EBO}$ | $V_{EB}$=-6.0V $I_C$=0 | | | -0.1 | μA |
| DC Current Gain | $h_{FE(1)}$ | $V_{CE}$=-2.0V $I_C$=-1.0A | 150 | | 600 | |
| | $h_{FE(2)}$ | $V_{CE}$=-2.0V $I_C$=-4.0A | 50 | | | |
| Collector to Emitter Saturation Voltage | $V_{CE(sat)\ (1)}$ | $I_C$=-1.0A $I_B$=-50mA | | -0.09 | -0.15 | V |
| | $V_{CE(sat)\ (2)}$ | $I_C$=-2.0A $I_B$=-0.1A | | -0.17 | -0.25 | V |
| | $V_{CE(sat)\ (3)}$ | $I_C$=-4.0A $I_B$=-0.2A | | -0.32 | -0.50 | V |
| Base to Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C$=-1.0A $I_B$=-0.1A | | -0.87 | -1.50 | V |
| Transition Frequency | $f_T$ | $V_{CE}$=-10V $I_C$=-50mA | | 95 | | MHz |
| Reverse Transfer Capacitance | $C_{ob}$ | $V_{CB}$=-10V f=1.0MHz | | 100 | | pF |

## 电参数曲线图 / Electrical Characteristic Curve

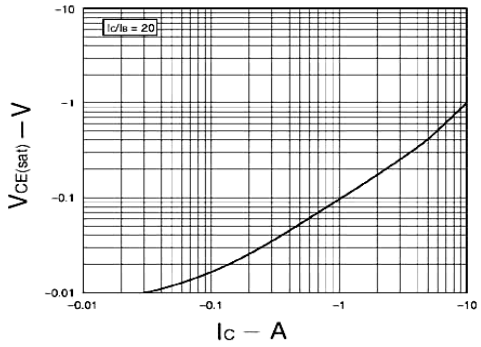
$P_T - T_C$



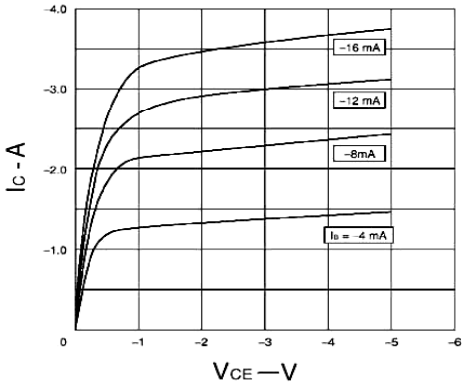

$I_C - V_{CE}$



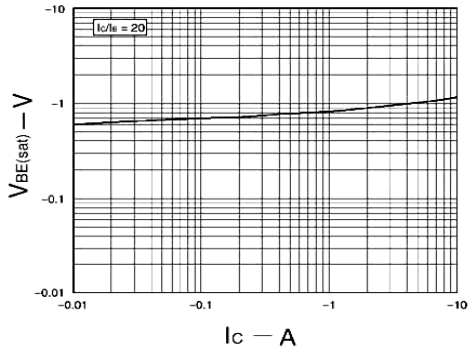

$V_{CE(sat)} - I_C$



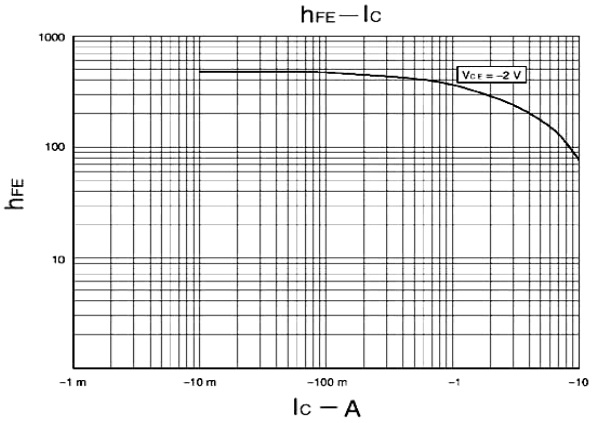

$I_C - V_{CE}$



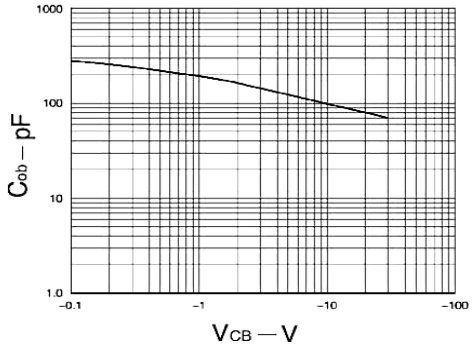

$V_{BE(sat)} - I_C$




$h_{FE} - I_C$



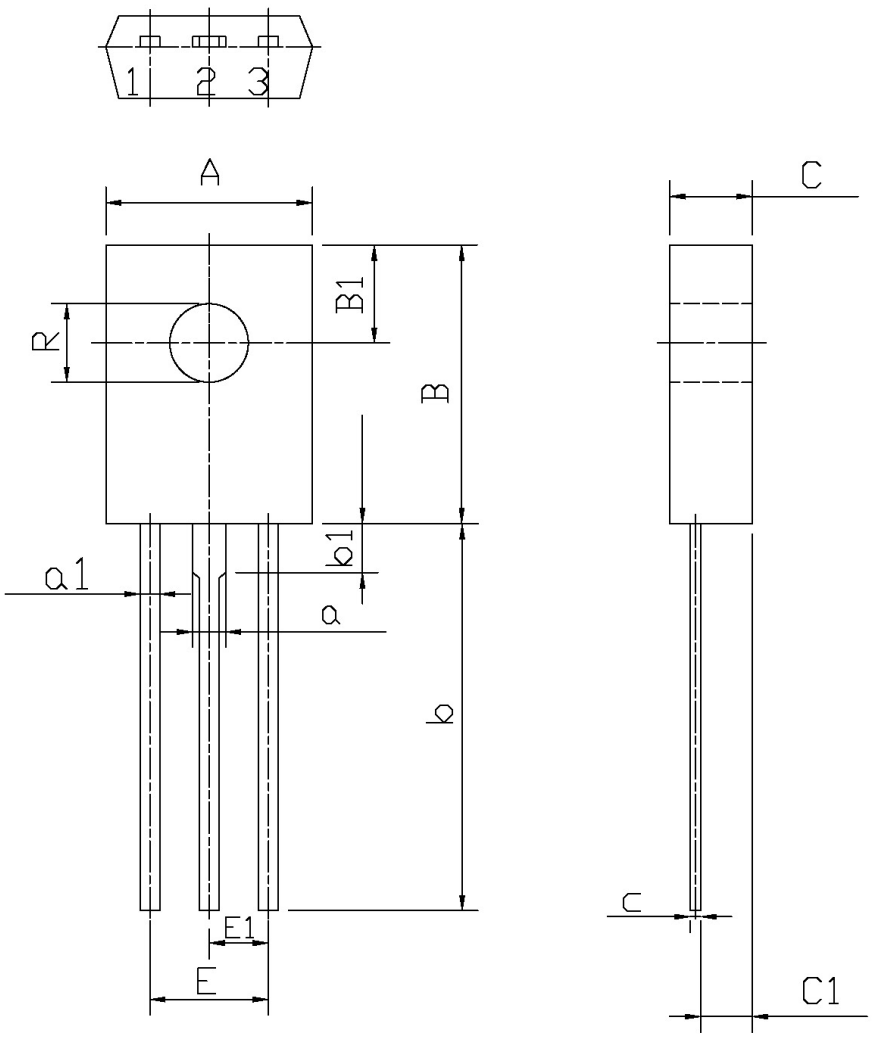

$C_{ob} - V_{CB}$



## 外形尺寸图 / Package Dimensions

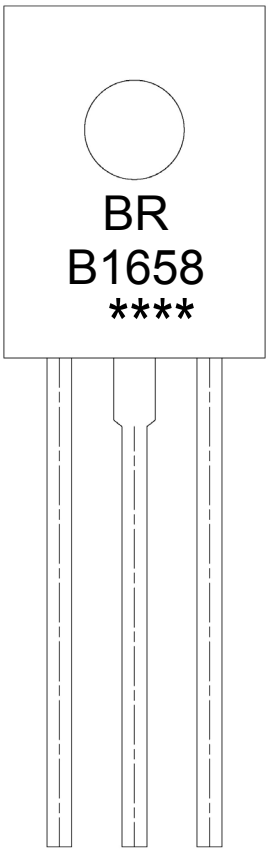
TO-126F

单位：mm




| Symbol | Dimensions In Millimeters | | Symbol | Dimensions In Millimeters | |
|---|---|---|---|---|---|
| | Min | Max | | Min | Max |
| A | 7.8 | 8.2 | a1 | 0.66 | 0.86 |
| B | 10.8 | 11.2 | E | 4.4 | 4.8 |
| B1 | 3.8 | 4.2 | C | 3.1 | 3.3 |
| R | 2.95 | 3.15 | C1 | 1.9 | 2.1 |
| b | 14 | 16 | c | 0.3 | 0.6 |
| b1 | 1.9 | | a | 1.27 | |
| E1 | 2.1 | 2.5 | | | |

## 印章说明 / Marking Instructions



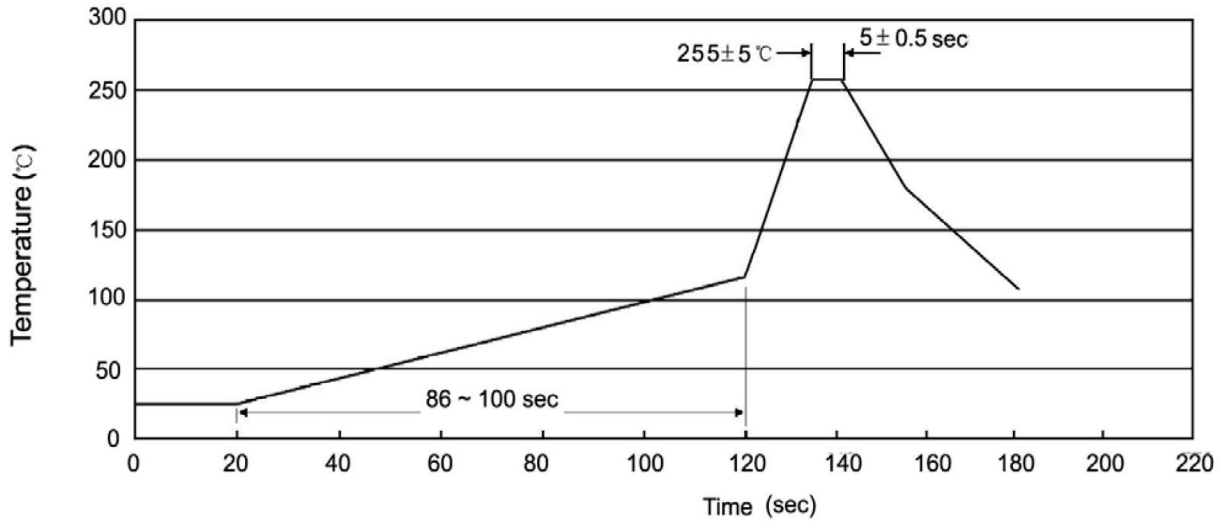

说明：

| | |
|---|---|
| BR： | 为公司代码 |
| B1658： | 为型号代码 |
| ****： | 为生产批号代码，随生产批号变化。 |

Note:

| | |
|---|---|
| BR: | Company Code |
| B1658: | Product Type. |
| ****: | Lot No. Code, code change with Lot No. |

## 波峰焊温度曲线图(无铅) / Temperature Profile for Dip Soldering(Pb-Free)




说明：

1、预热温度 25～150℃，时间 60～90sec;

2、峰值温度 255±5℃，时间持续为 5±0.5sec;

3、焊接制程冷却速度为 2～10℃/sec.

Note:

1.Preheating:25~150℃, Time:60~90sec.

2.Peak Temp.:255±5℃, Duration:5±0.5sec.

3. Cooling Speed: 2~10℃/sec.

## 耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions

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

## 包装规格 / Packaging SPEC.

散件包装 / BULK

| Package Type 封装形式 | Units 包装数量 | | | | | Dimension 包装尺寸 (unit: mm³) | | |
|---|---|---|---|---|---|---|---|---|
| | Units/Tube 只/套管 | Tubes/Inner Box 套管/盒 | Units/Inner Box 只/盒 | Inner Boxes/Outer Box 盒/箱 | Units/Outer Box 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 |

套管包装 / TUBE

| Package Type 封装形式 | Units 包装数量 | | | | | Dimension 包装尺寸 (unit: mm³) | | |
|---|---|---|---|---|---|---|---|---|
| | Units/Tube 只/套管 | Tubes/Inner Box 套管/盒 | Units/Inner Box 只/盒 | Inner Boxes/Outer Box 盒/箱 | Units/Outer Box 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 |

## 使用说明 / Notices