

## Y / Descriptions

SOT-323          PNP          Silicon PNP transistor in a SOT-323 Plastic Package.

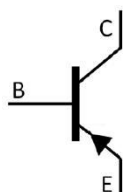
## • È / Features

$P_C$ ,  $h_{FE}$ , 9014W  
Hig  $P_C$  and  $I_C$ , excellent  $h_{FE}$  linearity, complementary pair with 9014W.

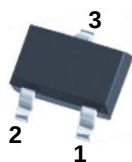
## v / Applications

Low frequency, low noise pre-amplifier.

## Л ~ α = / Equivalent Circuit



## ã / ũ / Pinning



PIN1   Emitter          PIN 2   Base          PIN 3   Collector

## т. н ù / Marking

| $h_{FE}$ Classifications<br>Symbol | A      | B       | C       |
|------------------------------------|--------|---------|---------|
| $h_{FE}$ Range                     | 60 150 | 100 300 | 200 600 |
| Marking                            | HM6A   | HM6B    | HM6C    |

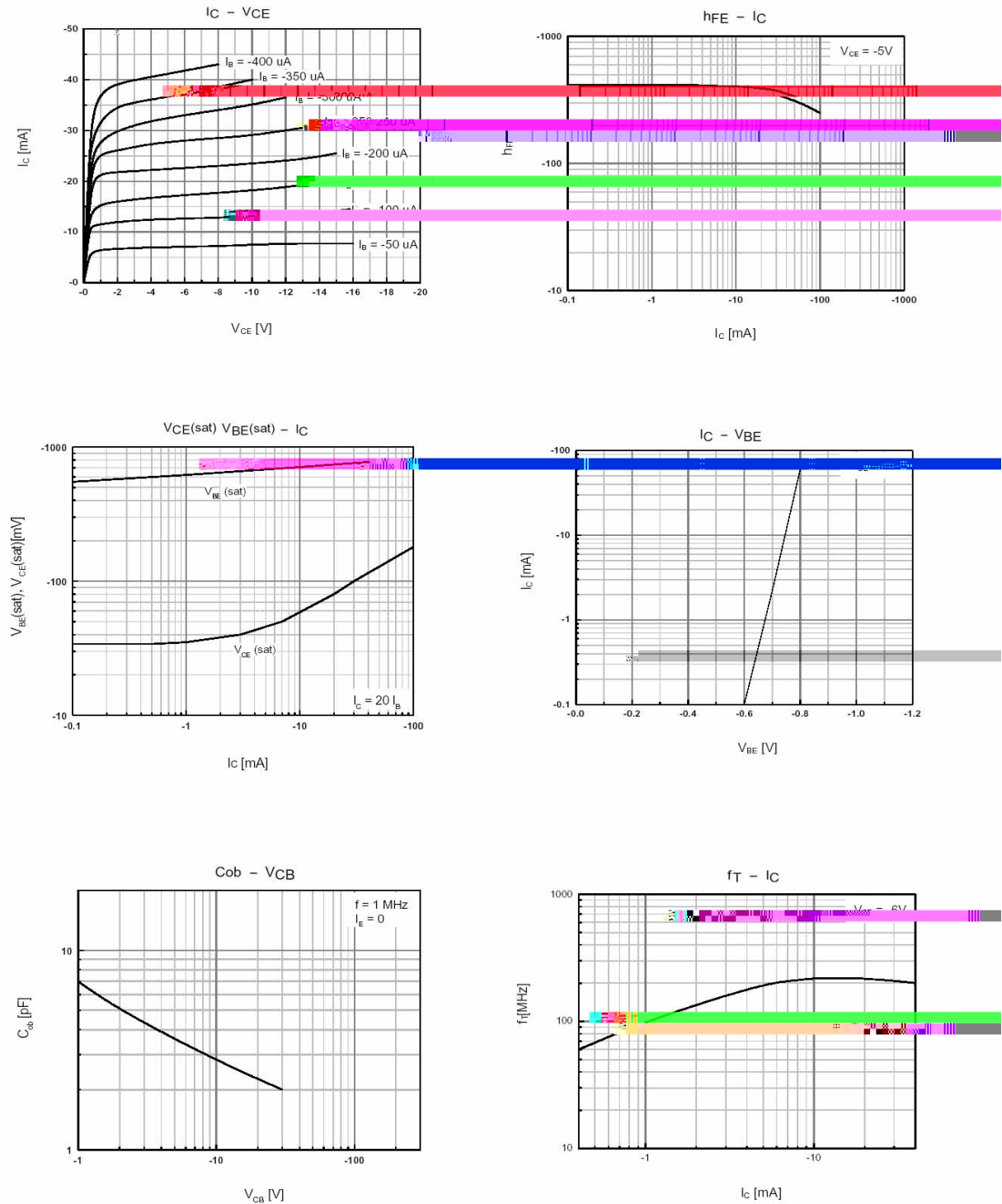
**绝对最大额定值(Absolute Maximum Ratings)(Ta=25℃)**

| Parameter                      | Symbol    | Rating    | Unit |
|--------------------------------|-----------|-----------|------|
| Collector to Base Voltage      | $V_{CBO}$ | -50       | V    |
| Collector to Emitter Voltage   | $V_{CEO}$ | -45       | V    |
| Emitter to Base Voltage        | $V_{EBO}$ | -5.0      | V    |
| Collector Current - Continuous | $I_C$     | -100      | mA   |
| Collector Power Dissipation    | $P_C$     | 250       | mW   |
| Junction Temperature           | $T_J$     | 150       |      |
| Storage Temperature Range      | $T_{stg}$ | -55 ~ 150 |      |

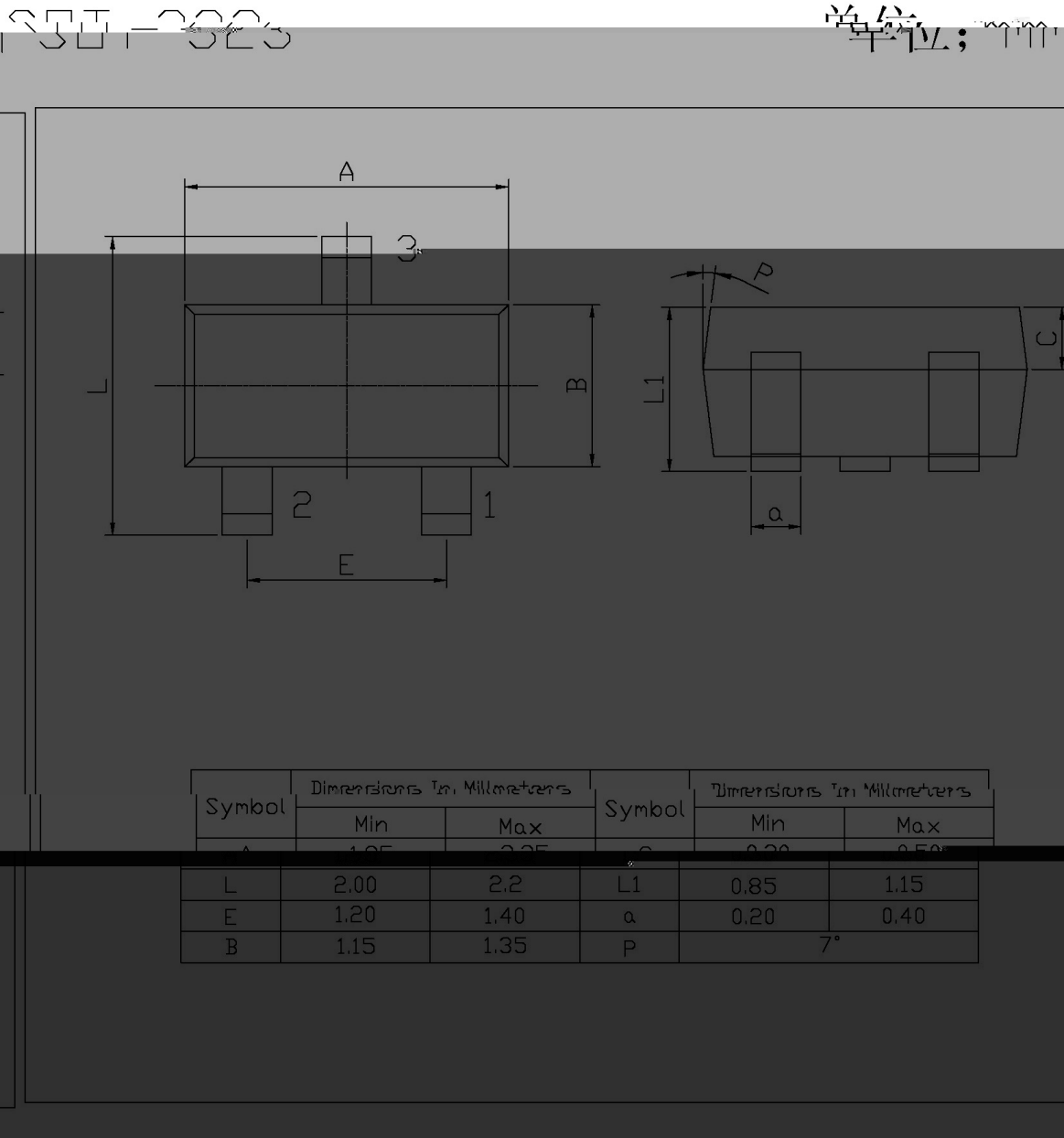
**电 气 特 性 (Electrical Characteristics)(Ta=25℃)**

| Parameter                              | Symbol        | Test Conditions                                                                          | Min  | Typ   | Max   | Unit    |
|----------------------------------------|---------------|------------------------------------------------------------------------------------------|------|-------|-------|---------|
| Collector to Base Breakdown Voltage    | $V_{CBO}$     | $I_C = -0.1mA$ $I_E = 0$                                                                 | -50  |       |       | V       |
| Collector to Emitter Breakdown Voltage | $V_{CEO}$     | $I_C = -1.0mA$ $I_B = 0$                                                                 | -45  |       |       | V       |
| Emitter to Base Breakdown Voltage      | $V_{EBO}$     | $I_E = -0.1mA$ $I_C = 0$                                                                 | -5.0 |       |       | V       |
| Collector Cut-Off Current              | $I_{CBO}$     | $V_{CB} = -50V$ $I_E = 0$                                                                |      |       | -0.05 | $\mu A$ |
| Emitter Base Cut-Off Current           | $I_{EBO}$     | $V_{EB} = -5.0V$ $I_C = 0$                                                               |      |       | -0.05 | $\mu A$ |
| DC Current Gain                        | $h_{FE}$      | $V_{CE} = -5.0V$ $I_C = -1.0mA$                                                          | 60   |       | 600   |         |
| Collector-Emitter Saturation Voltage   | $V_{CE(sat)}$ | $I_C = -100mA$ $I_B = -5.0mA$                                                            |      | -0.2  | -0.7  | V       |
| Base-Emitter Saturation Voltage        | $V_{BE(sat)}$ | $I_C = -100mA$ $I_B = -5.0mA$                                                            |      | -0.82 | -1.0  | V       |
| Collector-Emitter Voltage              | $V_{BE}$      | $V_{CE} = -5.0V$ $I_C = -2.0mA$                                                          |      | -0.65 | -0.75 | V       |
| Transition Frequency                   | $f_T$         | $V_{CE} = -5.0V$ $I_C = -10mA$                                                           | 100  | 190   |       | MHz     |
| Output Capacitance                     | $C_{ob}$      | $V_{CB} = -10V$ $I_E = 0$<br>$f = 1.0MHz$                                                |      | 4.5   | 7.0   | pF      |
| Noise Figure                           | NF            | $V_{CE} = -5.0V$ $I_C = -0.2mA$<br>$R_g = 2.0K\Omega$ $f = 1.0KHz$<br>$\Delta f = 200Hz$ |      | 0.7   | 10    | dB      |

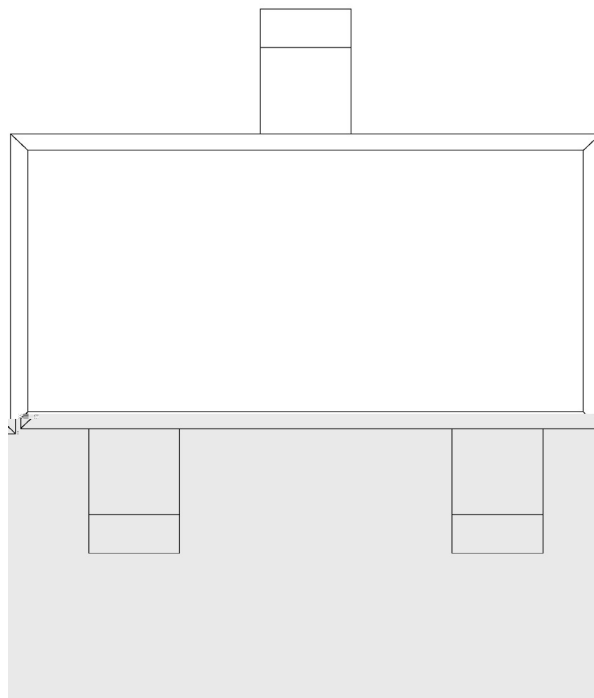
电 压 电 流 / Electrical Characteristic Curve



9015W / Package Dimensions



4. 符号 / Marking Instructions



H

M6

A  $h_{FE}$

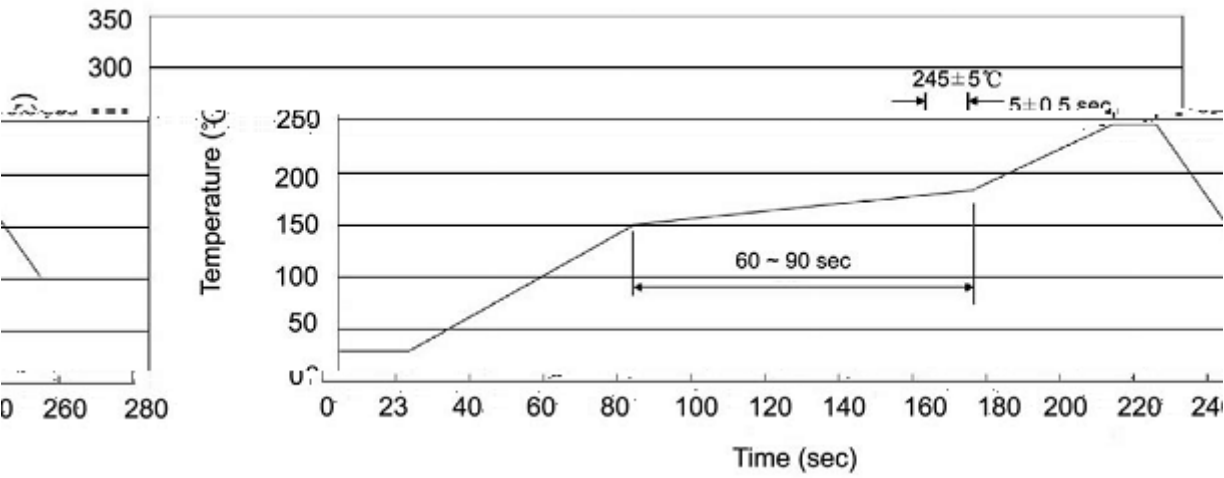
Note:

H: Company Code.

M6: Product Type.

A  $h_{FE}$

Wh p shudwxuh Suriloh i ru LU Uhior z Vroghulqj+Se0luhh,



Note:

- 1251506090sec;

2245±55±0.5sec;

3210 /sec.
- 1.Preheating:25~150 , Time:60~90sec.

2.Peak Temp.:245±5 , Duration:5±0.5sec.

3. Cooling Speed: 2~10 /sec.

Resistance to Soldering Heat Test Conditions

260±510±1 sec.Temp.:260±5Time:10±1 sec

Packaging SPEC.

/ REEL

| Package Type<br>封装形式 | Units 包装数量         |                         |                        |                              |                        | Dimension 包装尺寸 (unit: mm <sup>3</sup> ) |             |             |
|----------------------|--------------------|-------------------------|------------------------|------------------------------|------------------------|-----------------------------------------|-------------|-------------|
|                      | Units/Reel<br>只/卷盘 | Reels/Inner Box<br>卷盘/盒 | Units/Inner Box<br>只/盒 | Inner Boxes/Outer Box<br>盒/箱 | Units/Outer Box<br>只/箱 | Reel                                    | Inner Box 盒 | Outer Box 箱 |
| SOT-323              | 3,000              | 10                      | 30,000                 | 6                            | 180,000                | 7 ×8                                    | 180×120×180 | 390×385×205 |

Notices