## / Descriptions

Silicon NPN transistor in a SOT-23 Plastic Package.

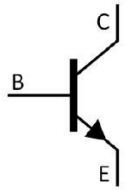
## / Features

High voltage, complementary pair with BC857.

## / Applications

General purpose application and switching application.

## / Equivalent Circuit




## / Pinning

PIN1 Base PIN 2 Emitter PIN 3 Collector

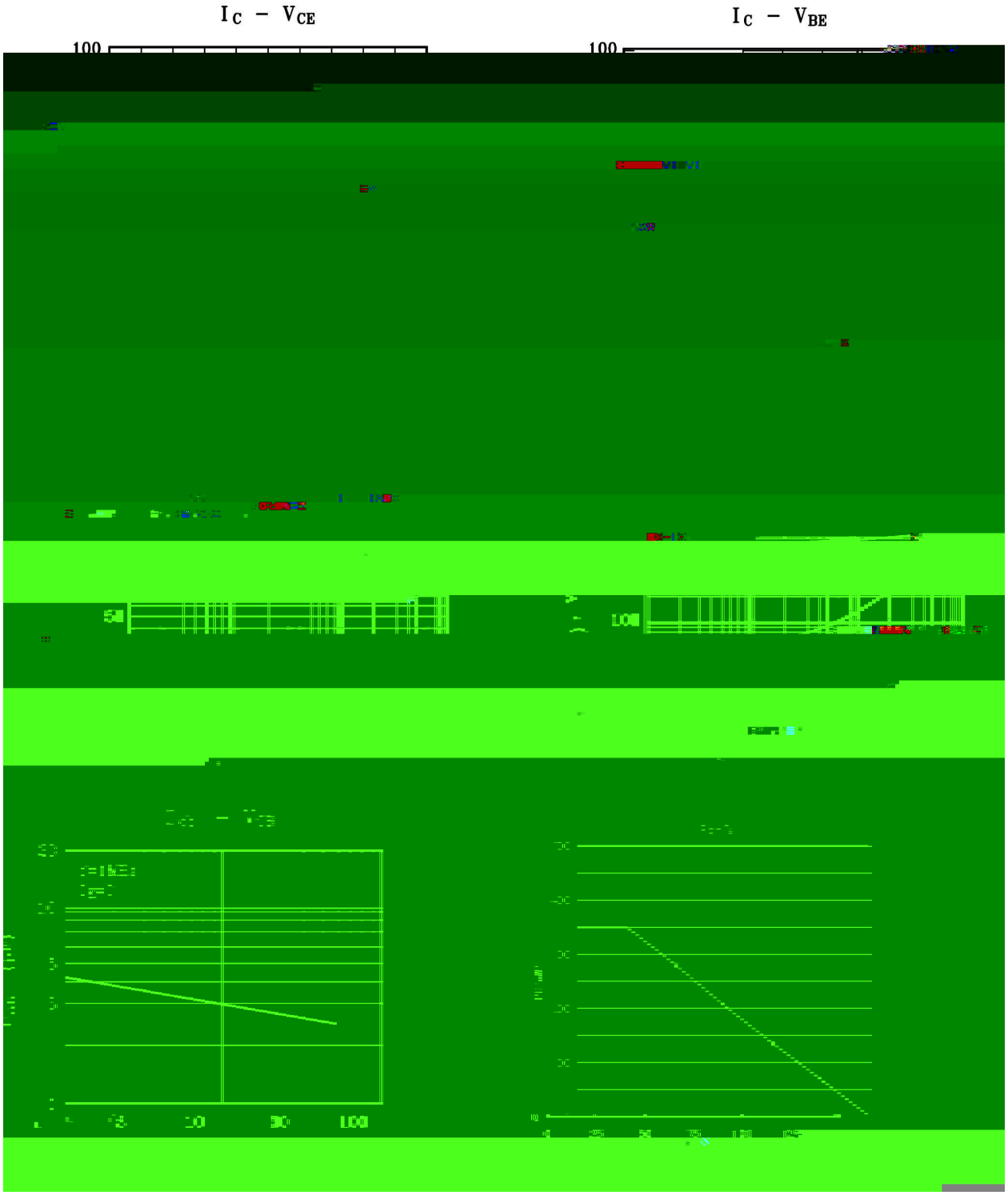
## / $h_{FE}$ Classifications & Marking

| $h_{FE}$ Classifications Symbol | A | B | C |
|---|---|---|---|
| $h_{FE}$ Range | | | |

| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Collector to Base Voltage | $V_{CBO}$ | 50 | V |
| Collector to Emitter Voltage | $V_{CEO}$ | 45 | V |
| Emitter to Base Voltage | $V_{EBO}$ | 6.0 | V |
| Collector Current - Continuous | $I_C$ | 100 | mA |
| Collector Power Dissipation | $P_C$ | 350 | mW |
| Junction Temperature | $T_j$ | 150 | |
| Storage Temperature Range | $T_{stg}$ | -55 150 | |

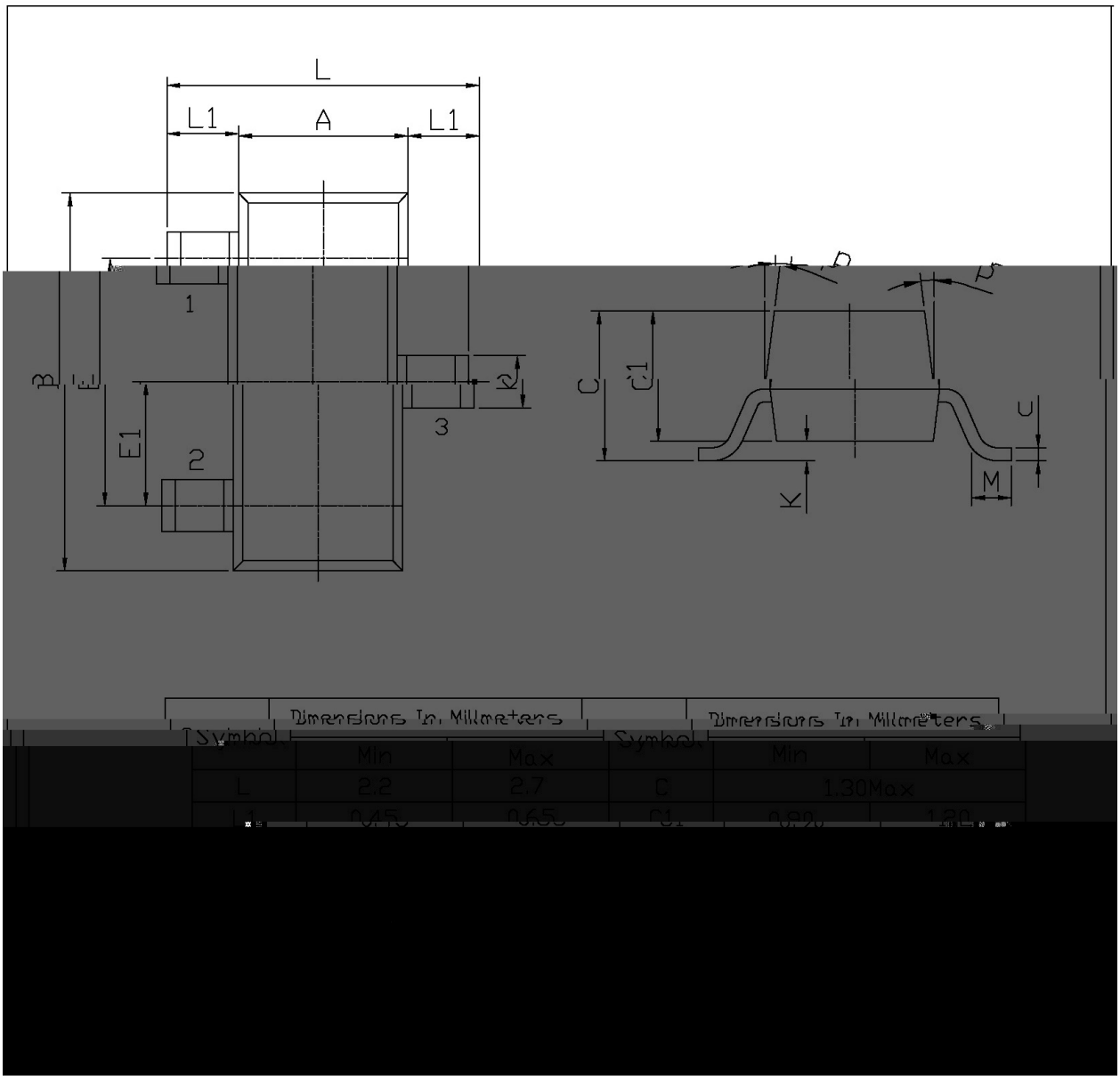
| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Collector Cut-Off Current | $I_{CBO}$ | $V_{CB}$=30V $I_E$=0 | | | 0.015 | μA |
| DC Current Gain | $h_{FE}$ | $V_{CE}$=5.0V $I_C$=2.0mA | 110 | | 800 | |
| Collector to Emitter Saturation Voltage | $V_{CE(sat)1}$ | $I_C$=10mA $I_B$=0.5mA | | 0.09 | 0.25 | V |
| | $V_{CE(sat)2}$ | $I_C$=100mA $I_B$=5.0mA | | 0.2 | 0.6 | V |
| Base to Emitter Saturation Voltage | $V_{BE(sat)1}$ | $I_C$=10mA $I_B$=0.5mA | | 0.7 | | V |
| | $V_{BE(sat)2}$ | $I_C$=100mA $I_B$ | | | | |

## / Electrical Characteristic Curve



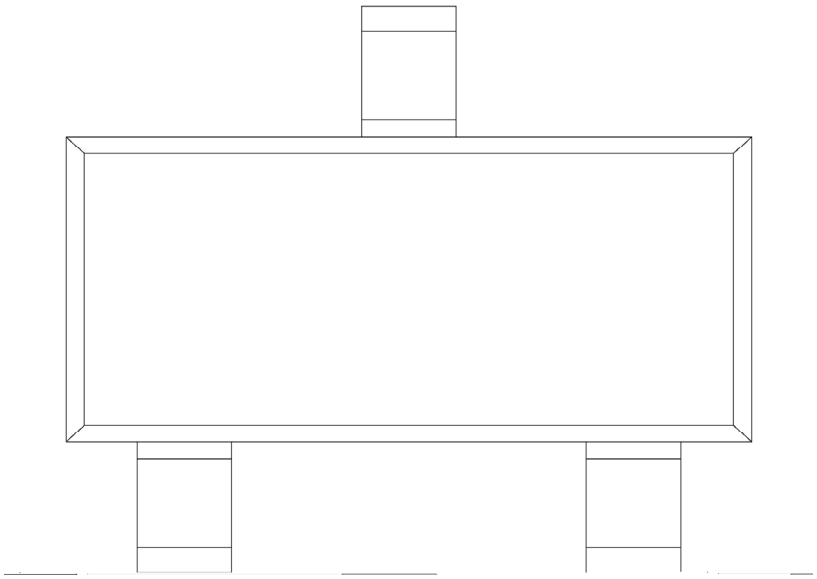
## / Package Dimensions

SOT-23 单位：mm




| Dimensions In Millimeters | | | Dimensions In Millimeters | | |
|---|---|---|---|---|---|
| Symbol | Min | Max | Symbol | Min | Max |
| L | 2.2 | 2.7 | C | 1.30Max | |
| | | | | | |

## / Marking Instructions

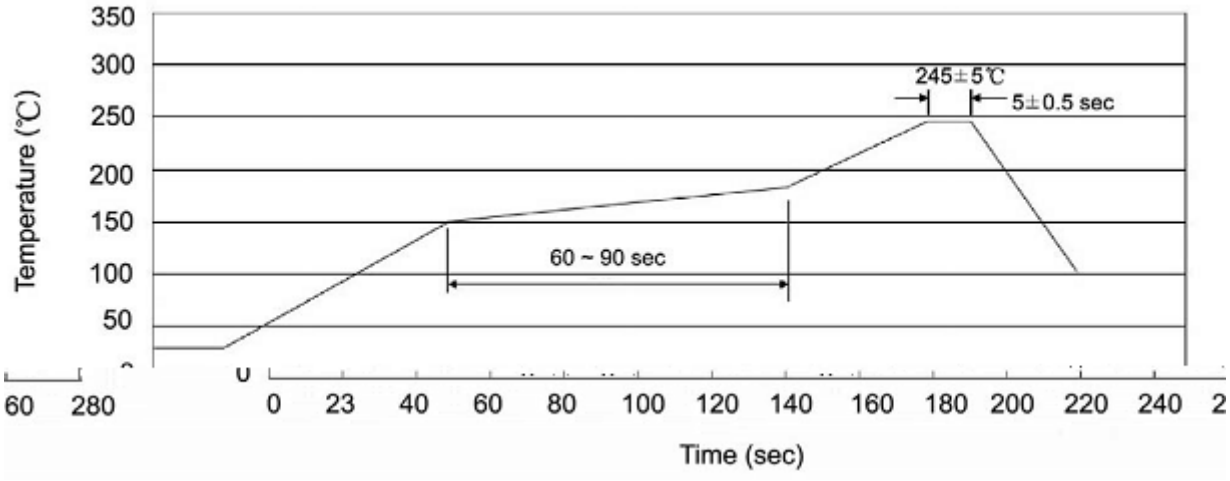


Note:

H: Company Code

1E: Product Type Code

## ( ) /




Note:

1 25 150 60 90sec;
1.Preheating:25~150 , Time:60~90sec.

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

3 2 10 /sec.
3. Cooling Speed: 2~10 /sec.

## / Resistance to Soldering Heat Test Conditions

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

## / Packaging SPEC.

/ REEL

| Package Type 封装形式 | Units 包装数量 | | | | | Dimension 包装尺寸 (unit: $mm^3$) | | |
|---|---|---|---|---|---|---|---|---|
| | 只 卷盘 | 卷盘 盒 | 只 盒 | 盒 箱 | 只 箱 | | 盒 | 箱 |
| | | | | | | | | |

## / Notices