## / Descriptions

SOT-23 NPN Silicon NPN transistor in a SOT-23 Plastic Package.

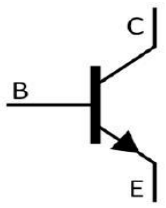
## / Features

Low current, high voltage.

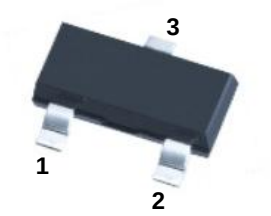
## / Applications

Telephony and professional communication equipment.

## / Equivalent Circuit




## / Pinning




PIN1 Base PIN 2 Emitter PIN 3 Collector

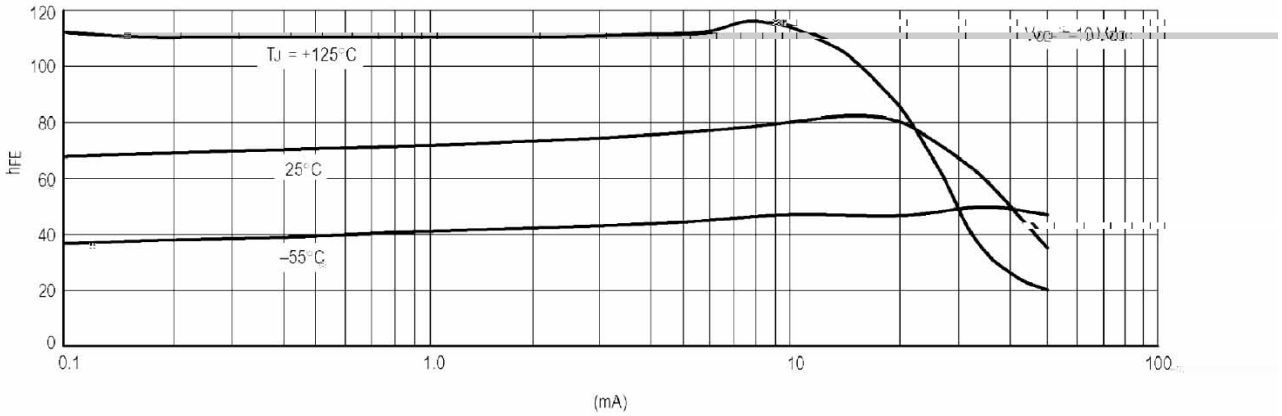
## / $h_{FE}$ Classifications & Marking

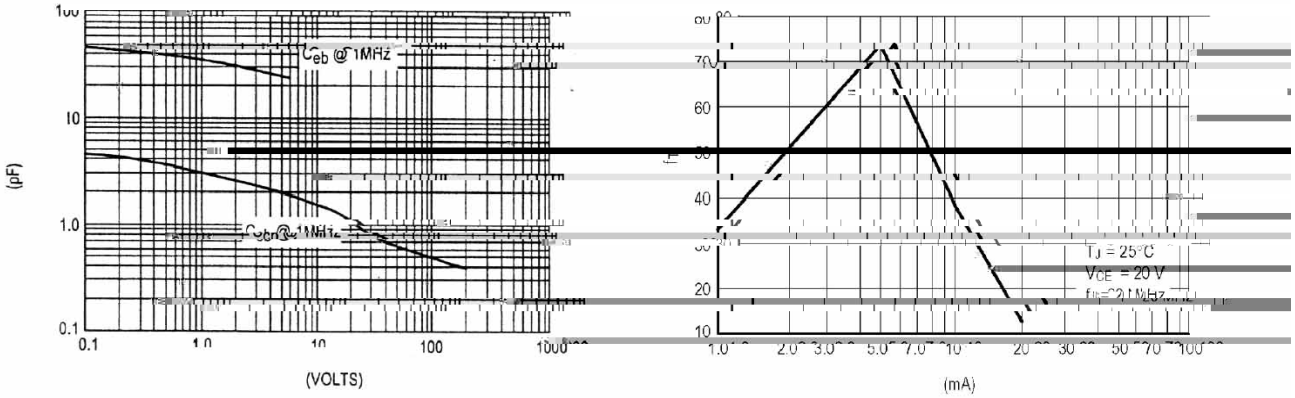
| | |
|---|---|
| $h_{FE}$ Range | >50 |
| Marking | H1V |

| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Collector to Base Voltage | $V_{CBO}$ | 300 | V |
| Collector to Emitter Voltage | $V_{CEO}$ | 300 | V |
| Emitter to Base Voltage | $V_{EBO}$ | 5.0 | V |
| Collector Current - Continuous | $I_C$ | 50 | mA |
| Peak Collector Current - Continuous | $I_{CM}$ | 100 | mA |
| Base Current | $I_B$ | 50 | mA |
| Collector Power Dissipation | $P_C$ | 250 | mW |
| Junction Temperature | $T_j$ | 150 | |
| Storage Temperature Range | $T_{stg}$ | -55 150 | |

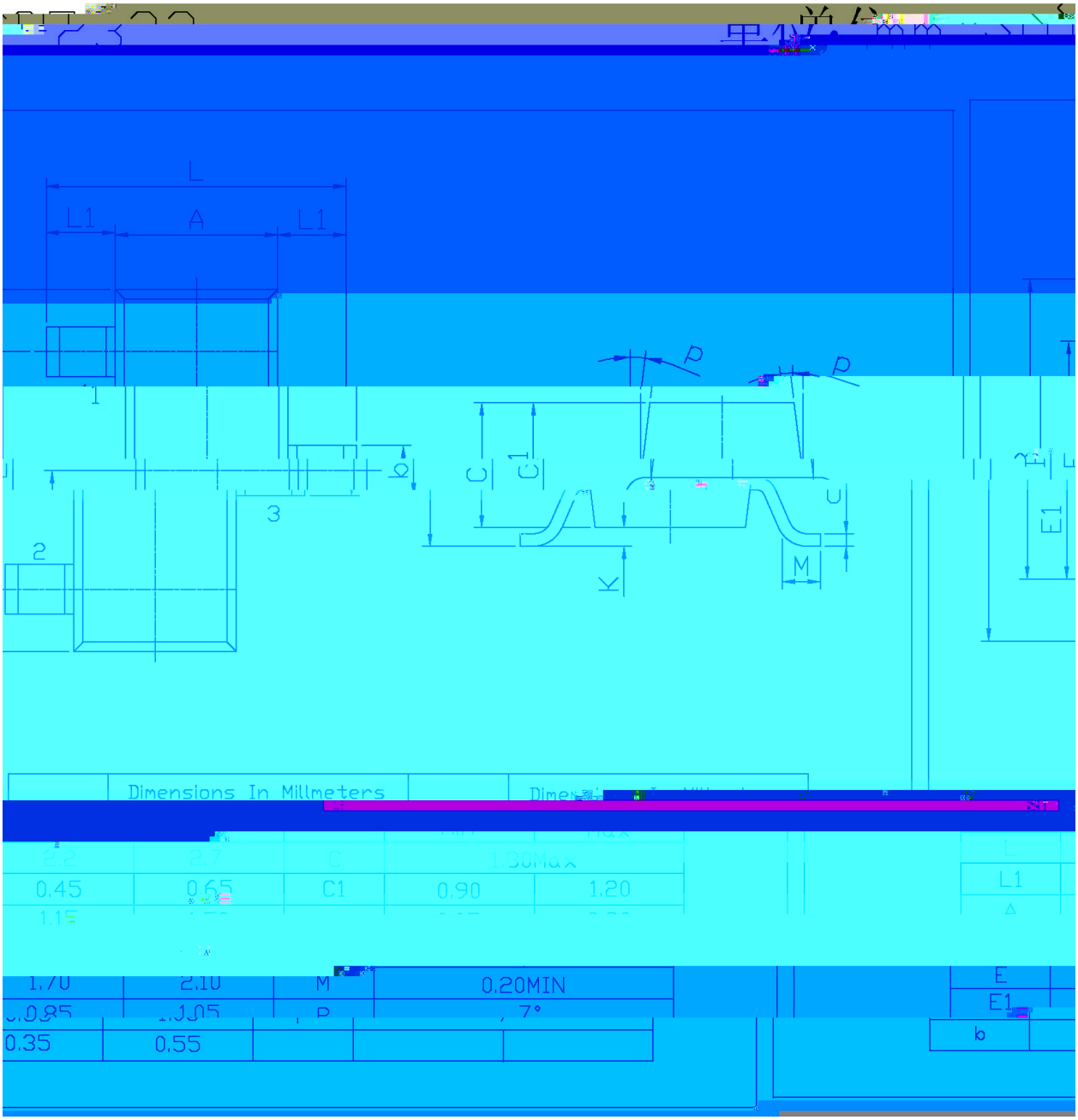
| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Collector to Base Breakdown Voltage | $V_{CBO}$ | $I_C$=100μA $I_E$=0 | 300 | | | V |
| Collector to Emitter Breakdown Voltage | $V_{CEO}$ | $I_C$=1.0mA $I_B$=0 | 300 | | | V |
| Emitter to Base Breakdown Voltage | $V_{EBO}$ | $I_E$=100μA $I_C$V | | | | |

## / Electrical Characteristic Curve

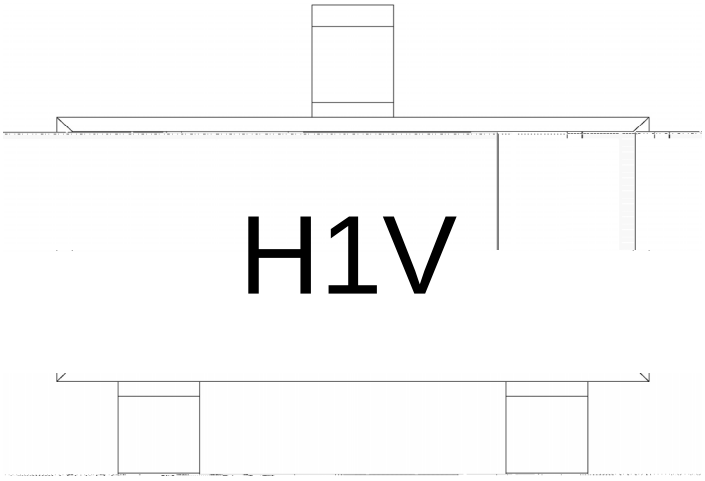


## / Package Dimensions



## / Marking Instructions




H

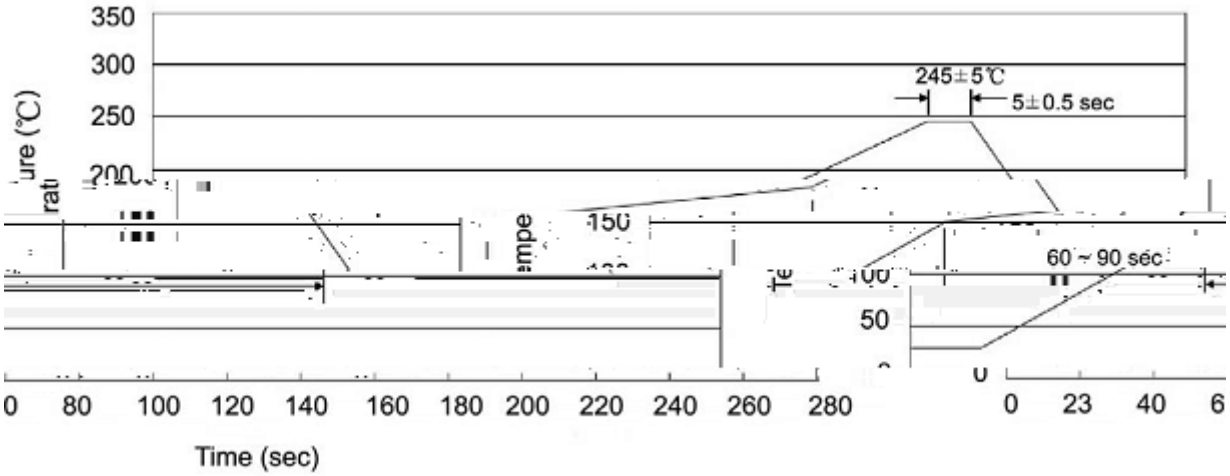
1V

Note:

H: Company Code.

1V: Product Type Code.

## ( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)




Note:

1 25 150 60 90sec;
2 245±5 5±0.5sec;
3 2 10 /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±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: $mm^3$) | | |
|---|---|---|---|---|---|---|---|---|
| | Units/Reel 只/卷盘 | Reels/Inner Box 卷盘/盒 | Units/Inner Box 只/盒 | Inner Boxes/Outer Box 盒/箱 | Units/Outer Box 只/箱 | Reel | Inner Box 盒 | Outer Box 箱 |
| SOT-23 | 3,000 | 10 | 30,000 | 6 | 180,000 | 7 ×8 | 180×120×180 | 390×385×205 |

## / Notices