

/ Descriptions

SOT-89                      PNP                      Silicon PNP transistor in a SOT-89 Plastic Package.

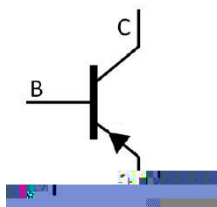
/ Features

600mA  
Collector currents to 600mA, HF Product.

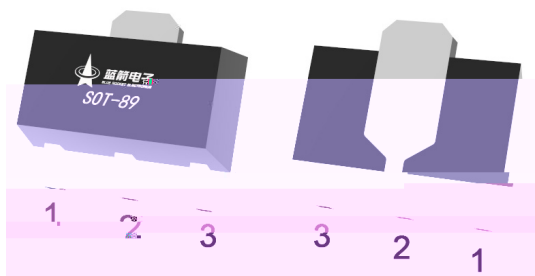
/ Applications

General purpose amplifier.

/ Equivalent Circuit



/ Pinning



PIN1    Base                      PIN 2    Collector                      PIN 3    Emitter

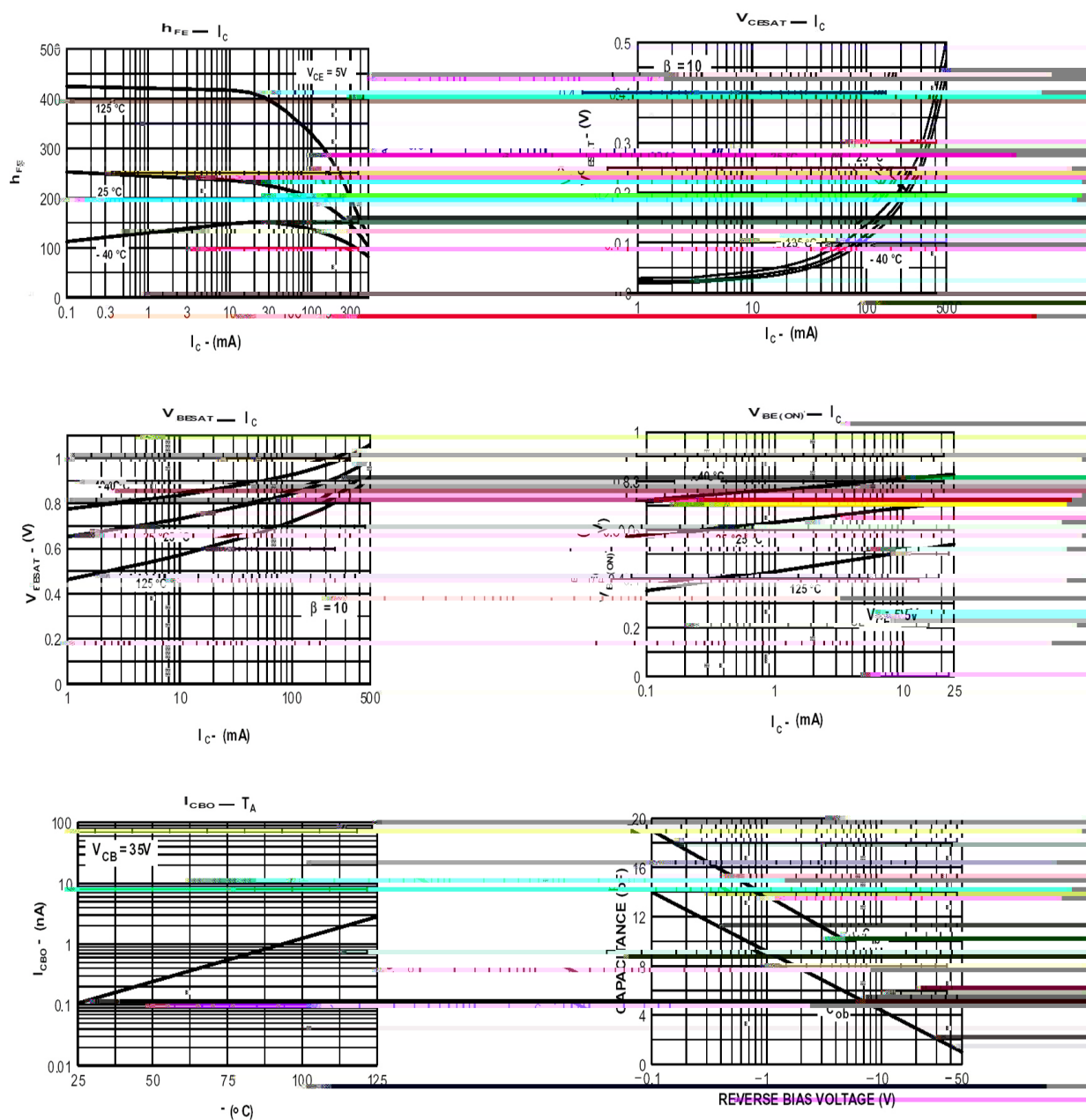
/  $h_{FE}$  Classifications & Marking

|         |     |
|---------|-----|
| Marking | H2F |
|---------|-----|

| Parameter                      | Symbol    | Rating  | Unit |
|--------------------------------|-----------|---------|------|
| Collector to Base Voltage      | $V_{CBO}$ | -60     | V    |
| Collector to Emitter Voltage   | $V_{CEO}$ | -60     | V    |
| Emitter to Base Voltage        | $V_{EBO}$ | -5.0    | V    |
| Collector Current - Continuous | $I_C$     | -600    | mA   |
| Collector Power Dissipation    | $P_C$     | 500     | 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     | $V_{CBO}$         | $I_C=-10\mu A$ $I_E=0$               | -60  |     |       | V       |
| Collector to Emitter Breakdown Voltage  | $V_{CEO}$         | $I_C=-10mA$ $I_B=0$                  | -60  |     |       | V       |
| Emitter to Base Breakdown Voltage       | $V_{EBO}$         | $I_E=-10\mu A$ $I_C=0$               | -5.0 |     |       | V       |
| Collector Cut-Off Current               | $I_{CBO}$         | $V_{CB}=-50V$ $I_E=0$                |      |     | -0.01 | $\mu A$ |
| DC Current Gain                         | $h_{FE(1)}$       | $V_{CE}=-10V$ $I_C=-150mA^*$         | 100  |     | 300   |         |
|                                         | $h_{FE(2)}$       | $V_{CE}=-10V$ $I_C=-500mA^*$         | 50   |     |       |         |
|                                         | $h_{FE(3)}$       | $V_{CE}=-10V$ $I_C=-10mA$            | 100  |     |       |         |
|                                         | $h_{FE(4)}$       | $V_{CE}=-10V$ $I_C=-1.0mA$           | 100  |     |       |         |
|                                         | $h_{FE(5)}$       | $V_{CE}=-10V$ $I_C=-0.1mA$           | 75   |     |       |         |
| Collector to Emitter Saturation Voltage | $V_{CE(sat) (1)}$ | $I_{C1}=-150mA$ $I_E=-15mA$          |      |     | -0.4  | V       |
|                                         | $V_{CE(sat) (2)}$ | $I_C=-500mA$ $I_B=-50mA$             |      |     | -1.6  | V       |
| Emitter to Base Saturation Voltage      | $V_{BE(sat) (1)}$ | $I_C=-150mA$ $I_B=-15mA$             |      |     | -1.3  | V       |
|                                         | $V_{BE(sat) (2)}$ | $I_C=-500mA$ $I_B=-50mA$             |      |     | -2.6  | V       |
| Transition Frequency                    | $f_T$             | $V_{CE}=-20V$ $I_C=-50mA$ $f=100MHz$ | 200  |     |       | MHz     |

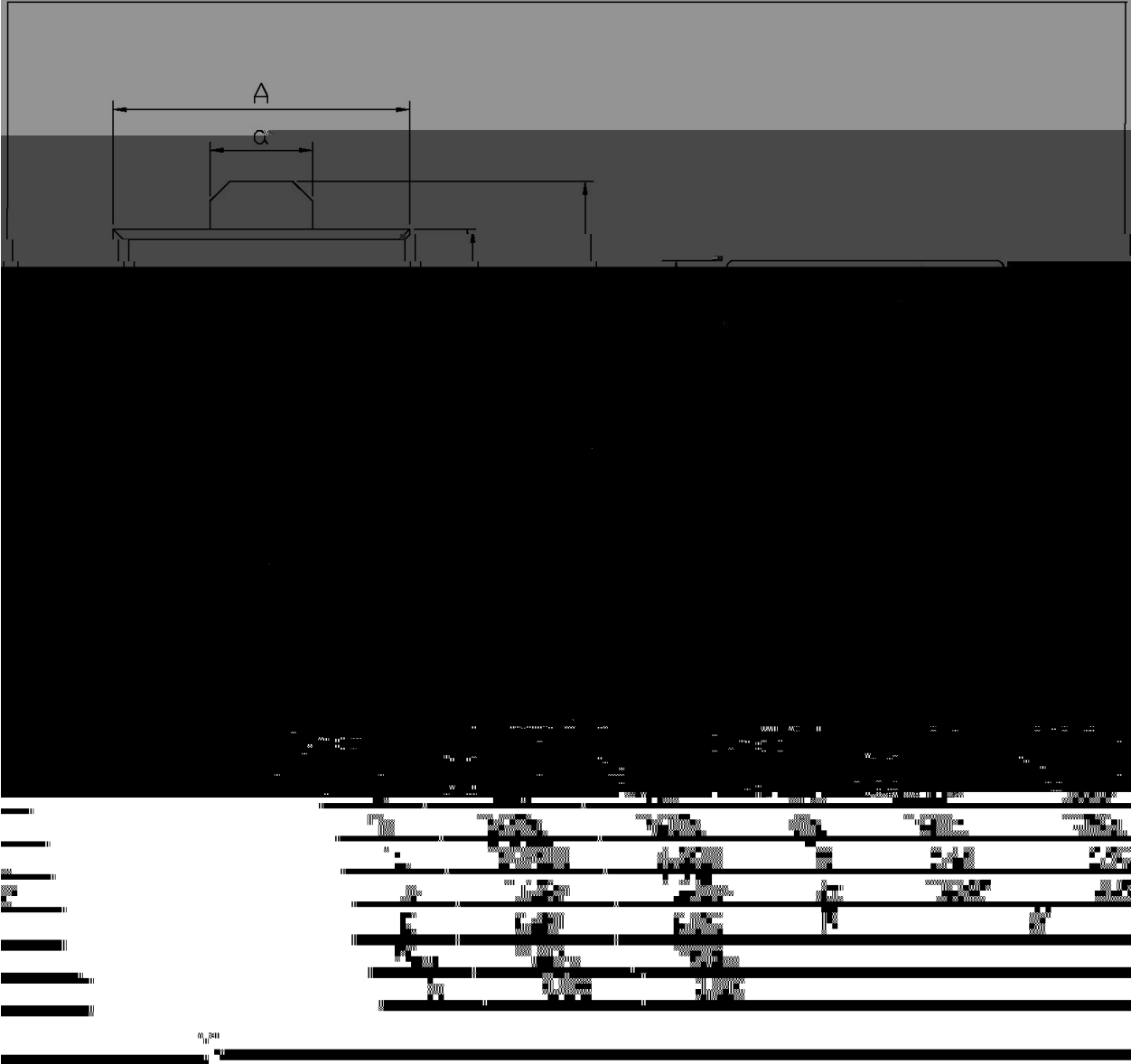
/ Electrical Characteristic Curve



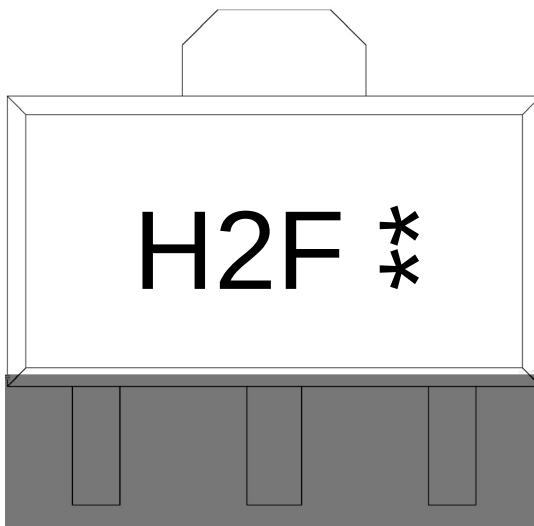
/ Package Dimensions

SOT-89

单位: mm



/ Marking Instructions



H

2F

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Note:

H: Company Code

2F: Product Type Code

\*\*: Lot No. Code, code change with Lot No

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

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|  |
|  |
|  |
|  |
|  |

- Note:

1

150 180

60 90sec;

1.Preheating:150~180 , 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 | Units | Dimension | (unit mm <sup>3</sup> ) |
|--------------|-------|-----------|-------------------------|