

“Y / Descriptions

Silicon PNP transistor in a SOT-89 Plastic Package.

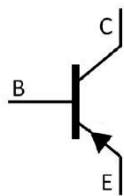
• È / Features

High voltage, complementary Pair with MMBT5551T.

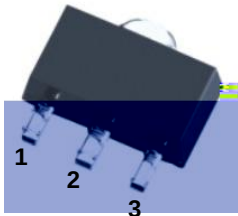
v / Applications

General purpose high voltage amplifier.

л ~ α ≈ / Equivalent Circuit



ã λ ũ / Pinning



PIN1 Base      PIN 2 Collector      PIN 3 Emitter

т. н џ / Marking

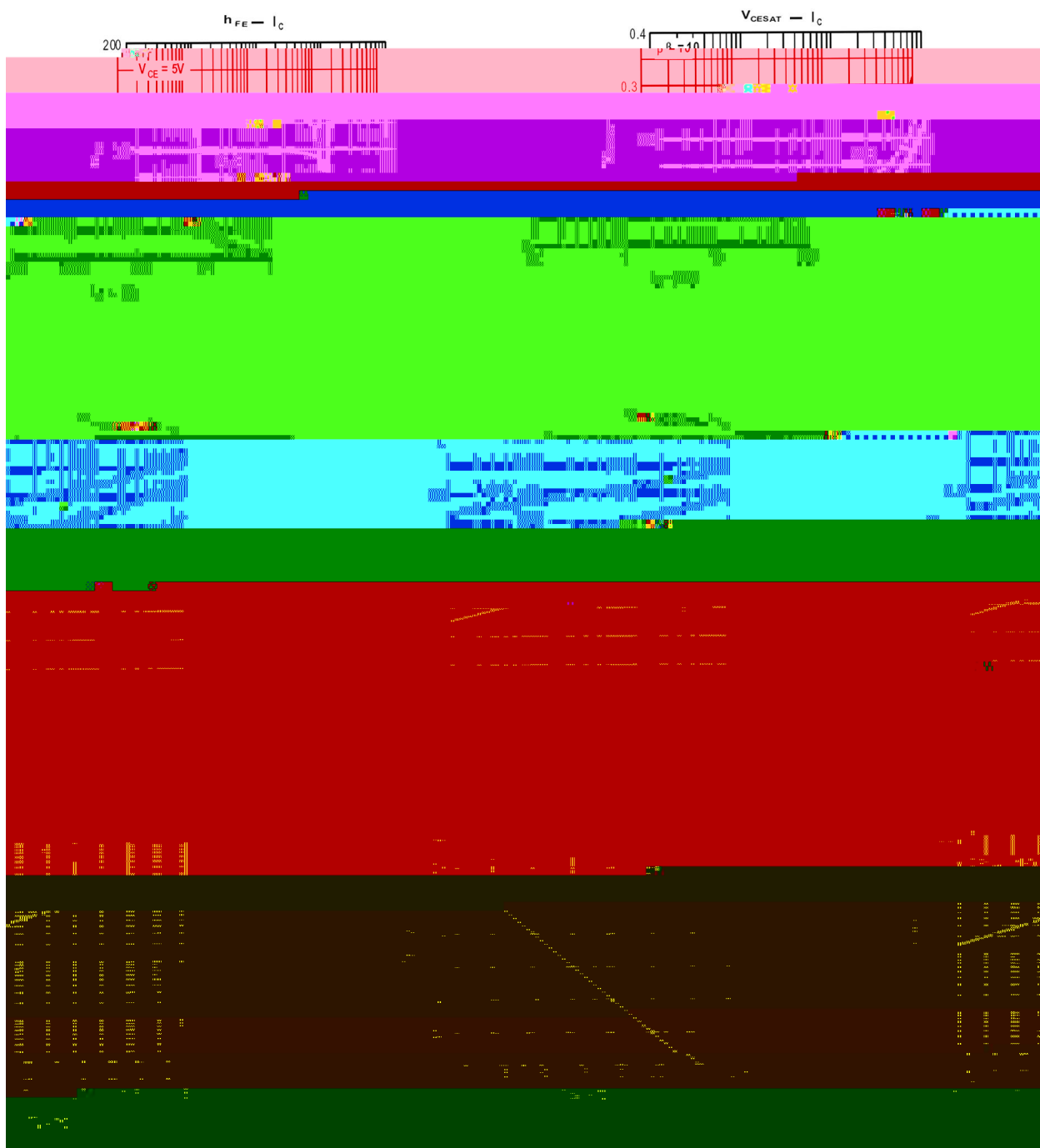
| h <sub>FE</sub> Classifications<br>Symbol | A      | B       | C       |
|-------------------------------------------|--------|---------|---------|
| h <sub>FE</sub> Range                     | 50 150 | 100 300 | 200 400 |
| Marking                                   | H2LA   | H2LB    | H2LC    |

φ 3A

| Parameter                      | Symbol    | Rating  | Unit |
|--------------------------------|-----------|---------|------|
| Collector to Base Voltage      | $V_{CBO}$ | -180    | V    |
| Collector to Emitter Voltage   | $V_{CEO}$ | -160    | V    |
| Emitter to Base Voltage        | $V_{EBO}$ | -6.0    | V    |
| Collector Current - Continuous | $I_C$     | -600    | mA   |
| Collector Base - Continuous    | $I_B$     | -300    | mA   |
| Collector Power Dissipation    | $P_C$     | 500     | mW   |
| Junction Temperature           | $T_j$     | 150     | °C   |
| Storage Temperature Range      | $T_{stg}$ | -55 150 | °C   |

| Parameter                               | Symbol            | Test Conditions                        | Min | Typ   | Max   | Unit    |
|-----------------------------------------|-------------------|----------------------------------------|-----|-------|-------|---------|
| Collector Cut-Off Current               | $I_{CBO}$         | $V_{CB}=-180V$ $I_E=0$                 |     |       | -0.1  | $\mu A$ |
| Emitter Base Cut-Off Current            | $I_{EBO}$         | $V_{EB}=-6.0V$ $I_C=0$                 |     |       | -0.1  | $\mu A$ |
| DC Current Gain                         | $h_{FE(1)}$       | $V_{CE}=-5.0V$ $I_C=-10mA$             | 50  | 200   | 400   |         |
|                                         | $h_{FE(2)}$       | $V_{CE}=-5.0V$ $I_C=-50mA$             | 20  | 70    |       |         |
|                                         | $h_{FE(3)}$       | $V_{CE}=-5.0V$ $I_C=-1.0mA$            | 40  | 180   |       |         |
| Collector to Emitter Saturation Voltage | $V_{CE(sat) (1)}$ | $I_C=-10mA$ $I_B=-1.0mA$               |     | -0.12 | -0.4  | V       |
|                                         | $V_{CE(sat) (2)}$ | $I_C=-50mA$ $I_B=-5.0mA$               |     | -0.5  | -0.8  | V       |
| Emitter to Base Saturation Voltage      | $V_{BE(sat) (1)}$ | $I_C=-10mA$ $I_B=-1.0mA$               |     | -0.75 | -1.0  | V       |
|                                         | $V_{BE(sat) (2)}$ | $I_C=-50mA$ $I_B=-5.0mA$               |     | -0.8  | -1.0  | V       |
| Emitter to Base Voltage                 | $V_{BE}$          | $V_{CE}=-5.0V$ $I_C=-10mA$             |     | -0.7  | -0.75 | V       |
| Transition Frequency                    | $f_T$             | $V_{CE}=-10V$ $I_E=10mA$               | 50  | 80    |       | MHz     |
| Collector Output Capacitance            | $C_{ob}$          | $V_{CB}=-10V$ $I_E=0$<br>$f=10MHz$     |     | 2.5   | 5.0   | pF      |
| Turn-on Time                            | $t_{on}$          | $I_C=-100Ma$<br>$-I_{B1}=I_{B2}=-10mA$ |     | 0.1   |       | $\mu s$ |
| Turn-off Time                           | $t_{off}$         |                                        |     | 0.2   |       | $\mu s$ |
| Storage Time                            | $t_{stg}$         |                                        |     | 0.1   |       | $\mu s$ |

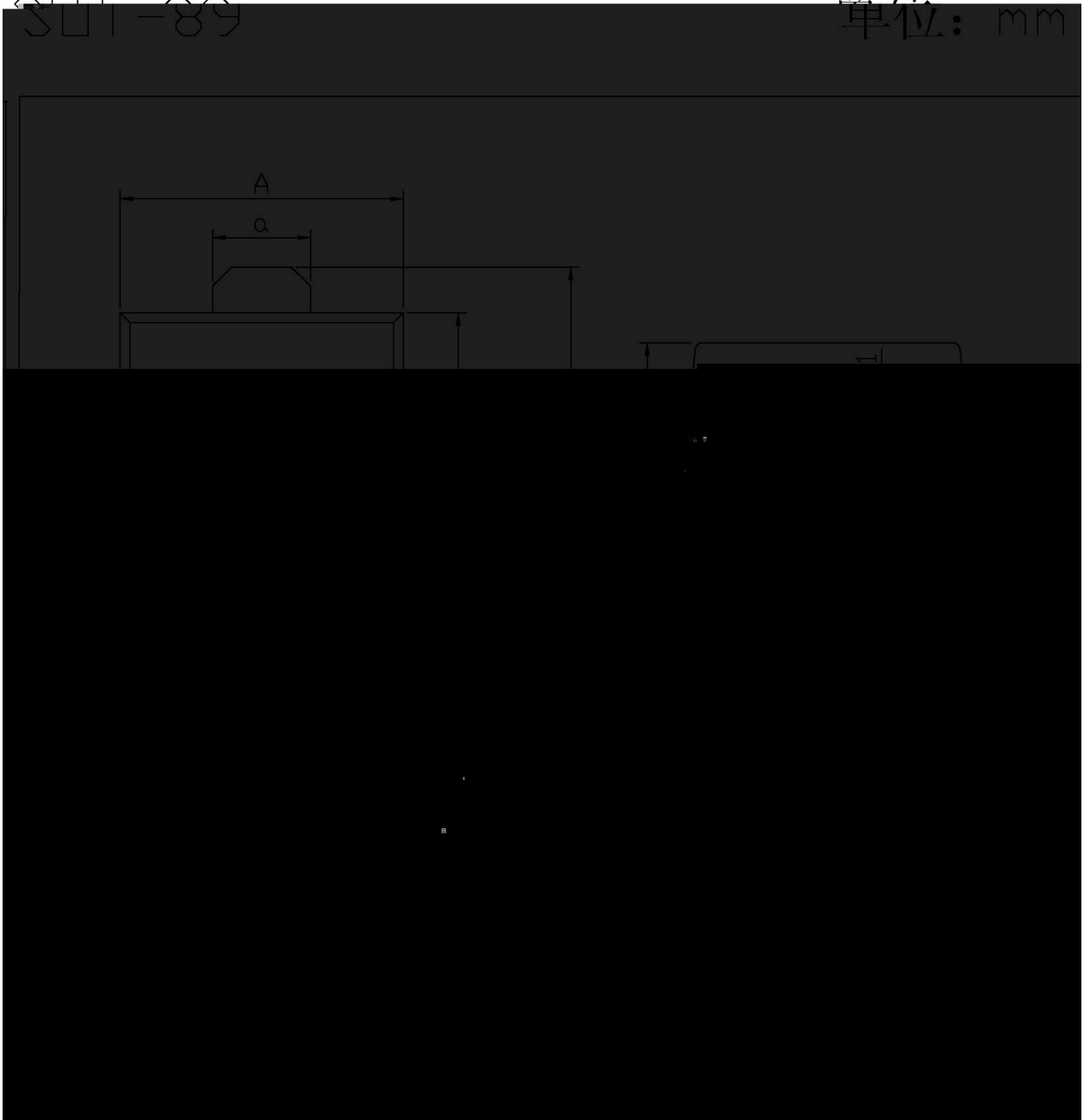
Electrical Characteristic Curve



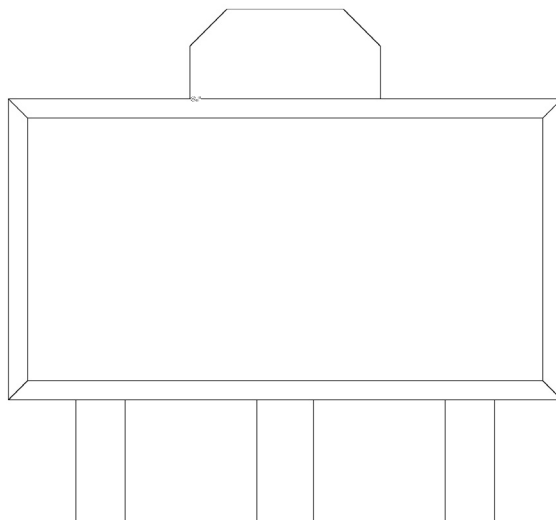
⊂ É Ò Ì f / Package Dimensions

SOT-89

单位: mm



4. 符号 / Marking Instructions



H

2L

A:  $h_{FE}$

Note:

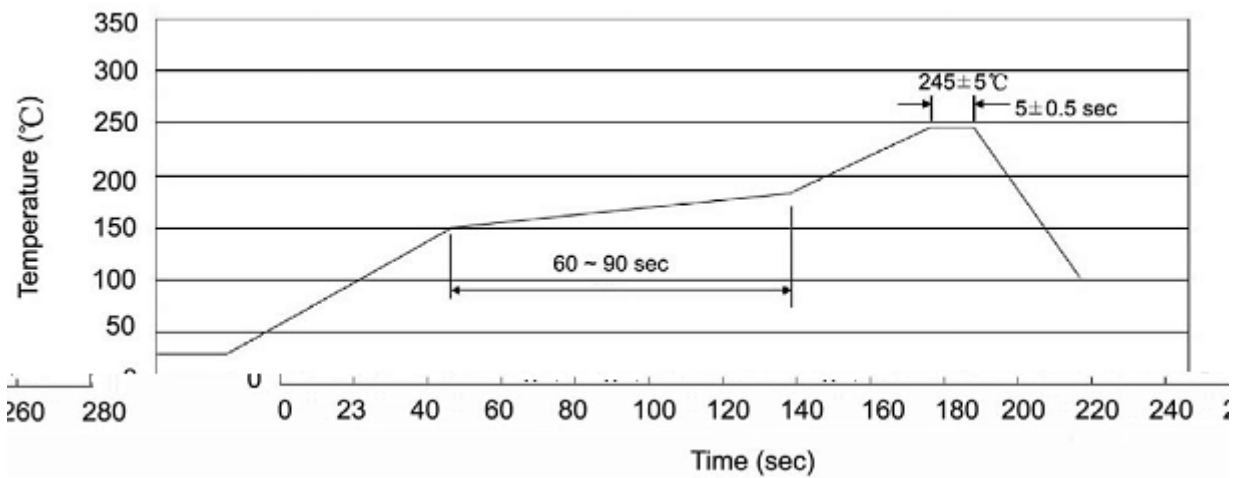
H: Company Code.

2L: Product Type.

A:  $h_{FE}$  Classifications Symbol

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

Whp shudwxuh Suriloh i ru LU Uhior z Vroghulqj+Se0luhh,



Note:

1. Preheating: 25~150 °C, Time: 60~90sec.
2. Peak Temp.: 245 ± 5 °C, Duration: 5 ± 0.5sec.
3. Cooling Speed: 2~10 °C/sec.

Resistance to Soldering Heat Test Conditions

260 ± 5 °C, 10 ± 1 sec. Temp.: 260±5°C Time: 10±1 sec

Packaging SPEC.

/ REEL

| Package Type | Units      |                 |                 |                       |                 | Dimension (unit mm <sup>3</sup> ) |             |             |
|--------------|------------|-----------------|-----------------|-----------------------|-----------------|-----------------------------------|-------------|-------------|
|              | Units/Reel | Reels/Inner Box | Units/Inner Box | Inner Boxes/Outer Box | Units/Outer Box | Reel                              | Inner Box   | Outer Box   |
| SOT-89       | 1,000      | 7               | 7,000           | 8                     | 56,000          | 7 × 12                            | 180×120×180 | 385×257×392 |

Notices