

### / Descriptions

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

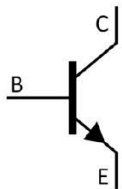
### / Features

Low  $V_{CE(sat)}$ , High performance at low supply voltage.

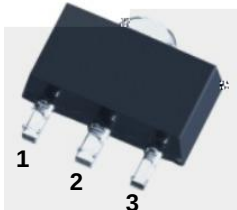
### / Applications

AF Power amplifier.

### / Equivalent Circuit



### / Pinning



PIN1    Base            PIN 2    Collector            PIN 3    Emitter

### / Marking

| $h_{FE}$ Classifications<br>Symbol | P          | Q          | R          |
|------------------------------------|------------|------------|------------|
| $h_{FE}$ Range                     | 180    270 | 230    380 | 340    600 |
| Marking                            | HTP *<br>* | HTQ *<br>* | HTR *<br>* |

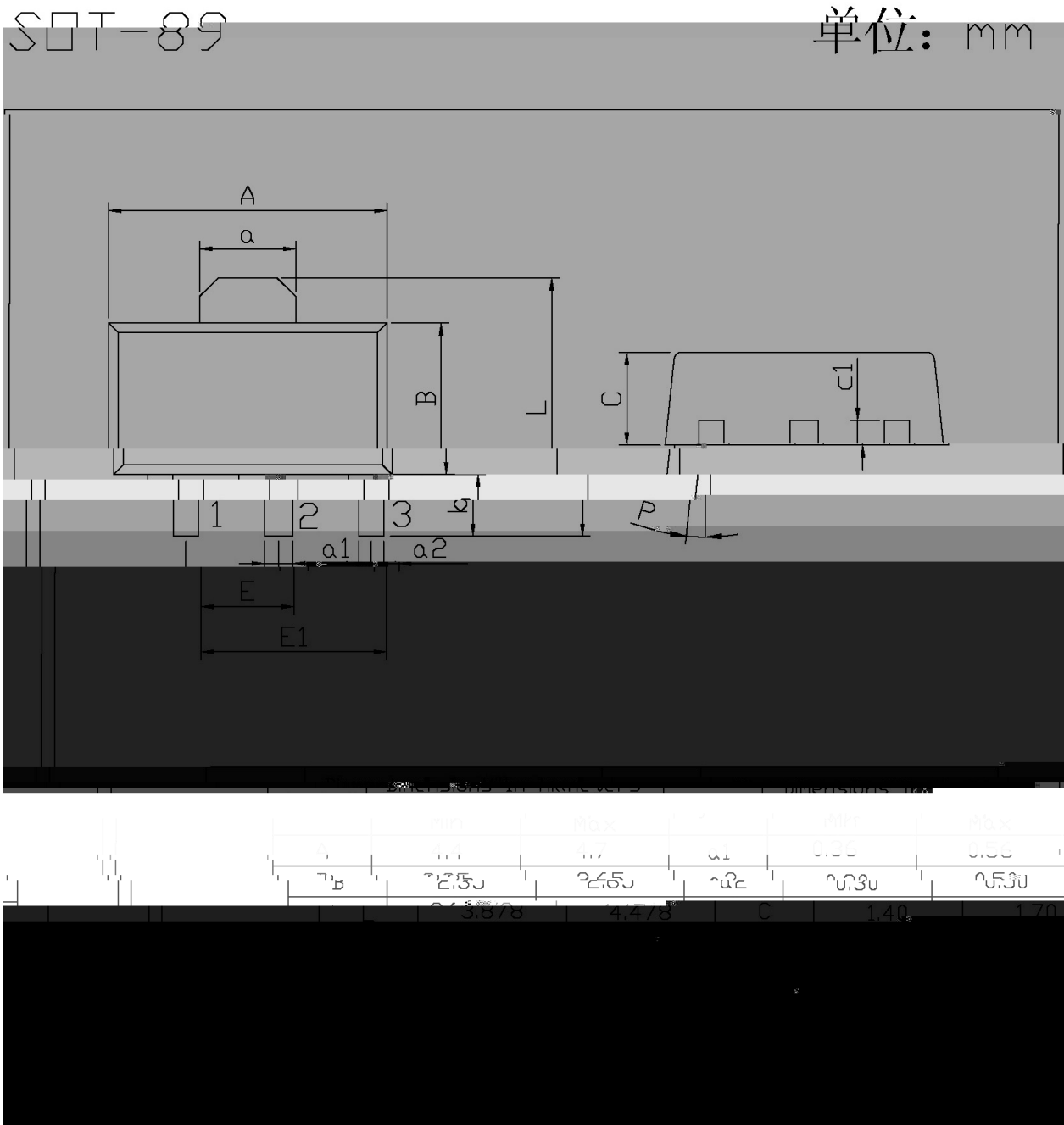
| Parameter                            | Symbol    | Rating | Unit |
|--------------------------------------|-----------|--------|------|
| Collector to Base Voltage            | $V_{CBO}$ | 40     | V    |
| Collector to Emitter Voltage         | $V_{CEO}$ | 25     | V    |
| Emitter to Base Voltage              | $V_{EBO}$ | 7.0    | V    |
| Collector Current-Continuous         | $I_C$     | 3.0    | A    |
| Collector Current -Continuous(Pluse) | $I_{CP}$  | 5.0    | A    |
| Collector Power Dissipation          | $P_C$     | 1.0    | W    |
| Junction Temperature                 | $T_j$     | 150    |      |
| Storage Temperature Range            | T         |        |      |



## / Electrical Characteristic Curve

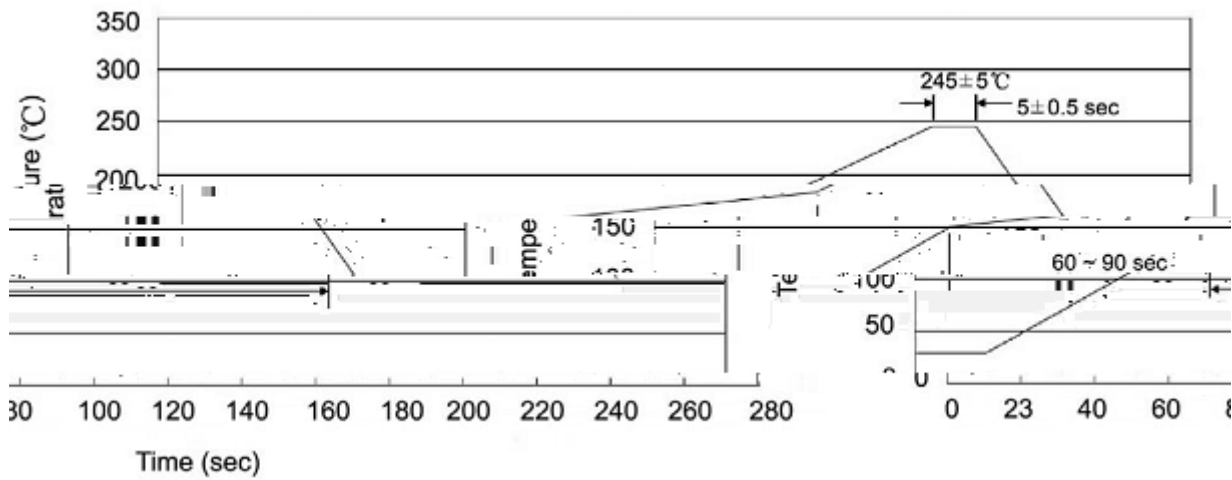


/ Package Dimensions





( ) /



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 | 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                             | s         |           |