

## / Descriptions

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

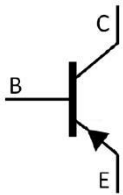
## / Features

Complementary pair with 2SC2881.  
High  $f_T$ , high  $V_{CEO}$ , small flat package, complementary pair with 2SC2881.

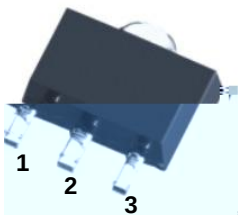
## / Applications

Power amplifier applications.

## / Equivalent Circuit



## / Pinning



PIN1   Base          PIN 2   Collector          PIN 3   Emitter

## / Marking

|                                    |          |           |
|------------------------------------|----------|-----------|
| $h_{FE}$ Classifications<br>Symbol | O        | Y         |
| $h_{FE}$ Range                     | 80   160 | 120   240 |
| Marking                            | HDO      | HDY       |

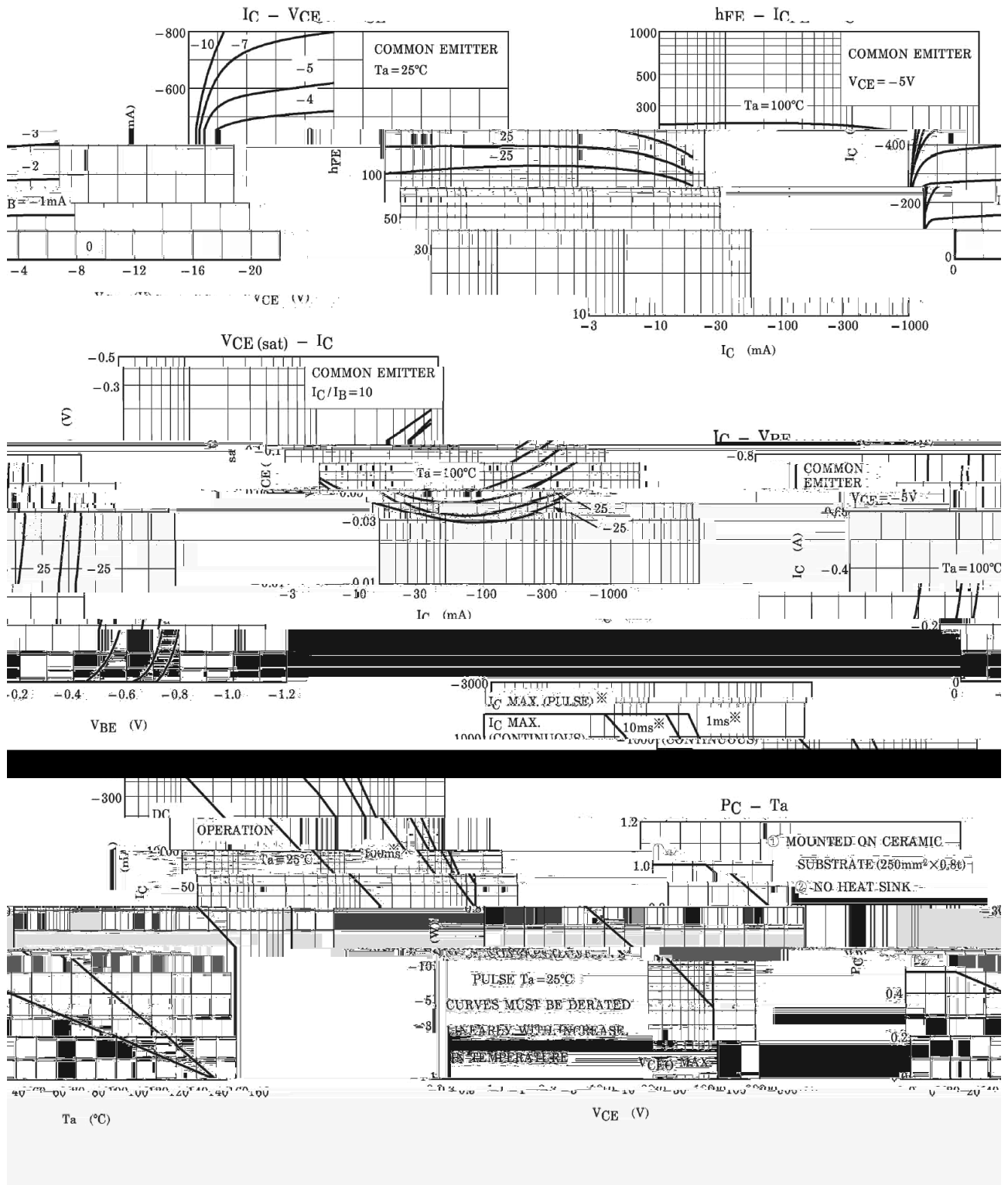
| Parameter                    | Symbol    | Rating  | Unit |
|------------------------------|-----------|---------|------|
| Collector to Base Voltage    | $V_{CBO}$ | -120    | V    |
| Collector to Emitter Voltage | $V_{CEO}$ | -120    | V    |
| Emitter to Base Voltage      | $V_{EBO}$ | -5.0    | V    |
| Collector Current-Continuous | $I_C$     | -800    | mA   |
| Collector Base-Continuous    | $I_B$     | -160    | mA   |
| Collector Power Dissipation  | $P_C$     | 500     | mW   |
| Collector Power Dissipation* | $*P_C$    | 1.0     | W    |
| Junction Temperature         | $T_j$     | 150     |      |
| Storage Temperature Range    | $T_{stg}$ | -55 150 |      |

\*mounted on ceramic substrate(250mm<sup>2</sup>×0.8t)  
\* 250mm<sup>2</sup>×0.8t

| Parameter                               | Symbol        | Test Conditions             | Min  | Typ | Max  | Unit |
|-----------------------------------------|---------------|-----------------------------|------|-----|------|------|
| Collector to Emitter Breakdown Voltage  | $V_{CEO}$     | $I_C=-10mA$ $I_B=0$         | -120 |     |      | V    |
| Emitter to Base Breakdown Voltage       | $V_{EBO}$     | $I_C=-1.0mA$ $I_C=0$        | -5.0 |     |      | V    |
| Collector Cut-Off Current               | $I_{CBO}$     | $V_{CB}=-120V$ $I_E=0$      |      |     | -0.1 | A    |
| Emitter Base Cut-Off Current            | $I_{EBO}$     | $V_{EB}=-5.0V$ $I_C=0$      |      |     | -0.1 | A    |
| DC Current Gain                         | $h_{FE}$      | $V_{CE}=-5.0V$ $I_C=-100mA$ | 80   |     | 240  |      |
| Collector to Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=-500mA$ $I_B=-50mA$    |      |     | -1.0 | V    |

Collector to Base Voltage V

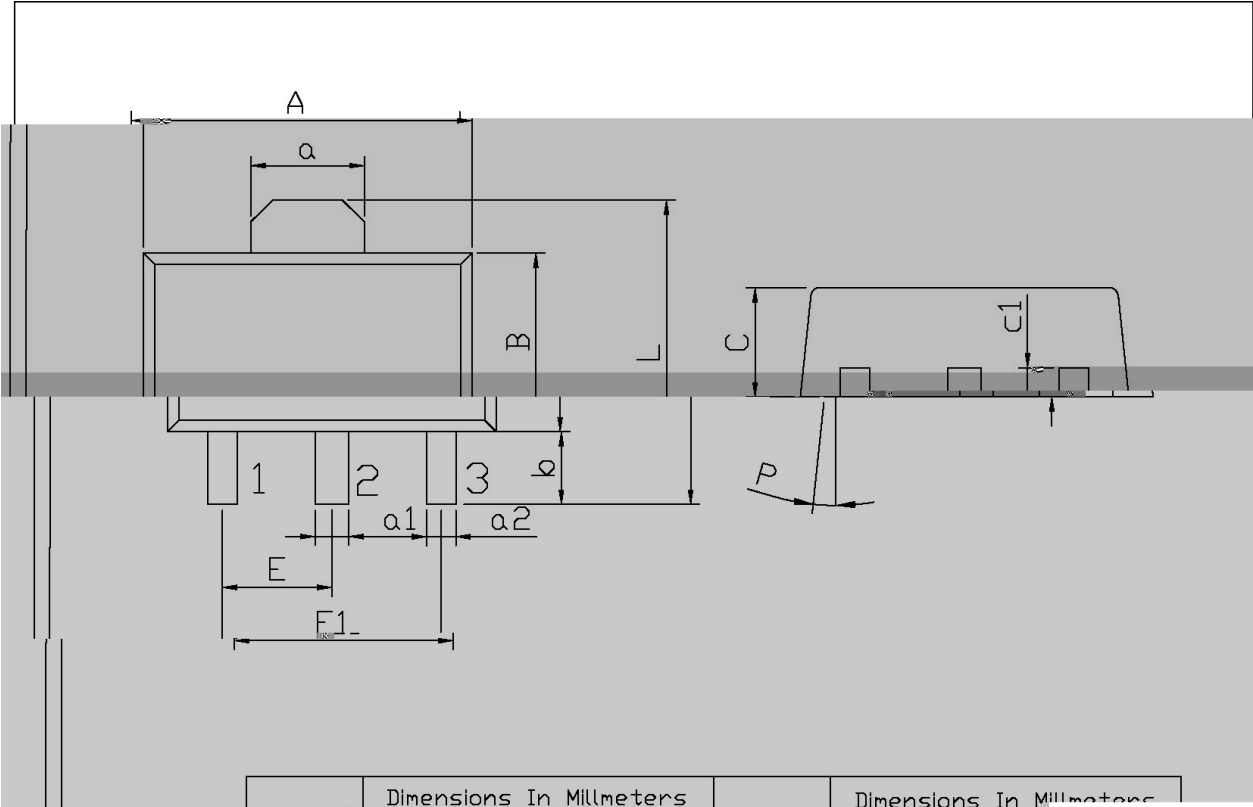
**/ Electrical Characteristic Curve**



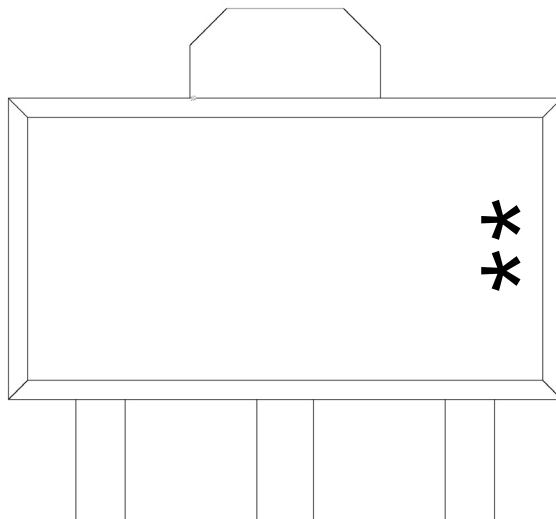
/ Package Dimensions

SQT-89

单位：mm



**/ Marking Instructions**



H

D

O             $h_{FE}$

\*\*

Note:

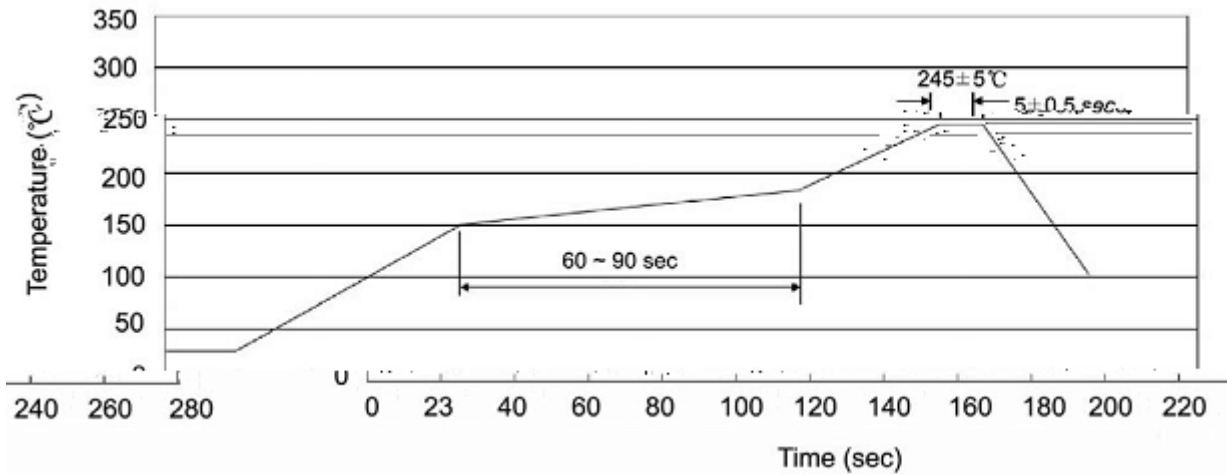
H:            Company Code.

D:            Product Type.

O:             $h_{FE}$  Classifications Symbol

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

( ) /



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<br>/ | Reels/Inner Box<br>/ | Units/Inner Box<br>/ | Inner Boxes/Outer Box<br>/ | Units/Outer Box<br>/ | Reel                              | Inner Box   | Outer Box   |
| SOT-89       | 1,000           | 7                    | 7,000                | 8                          | 56,000               | 7 ×12                             | 180×120×180 | 385×257×392 |

### / Notices