

## / Descriptions

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

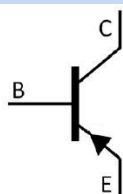
## / Features

， KTC3876  
Excellent  $h_{FE}$  linearity, complementary pair with KTC3876.

## / Applications

General amplifier and switching application.

## / Equivalent Circuit



## / Pinning



PIN 1   Base          PIN 2   Emitter          PIN 3   Collector

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

| $h_{FE}$ Classifications<br>Symbol | O        | Y         | GR        |
|------------------------------------|----------|-----------|-----------|
| $h_{FE}$ Range                     | 70   140 | 120   240 | 200   400 |
| Marking                            | HAZO     | HAZY      | HAZG      |

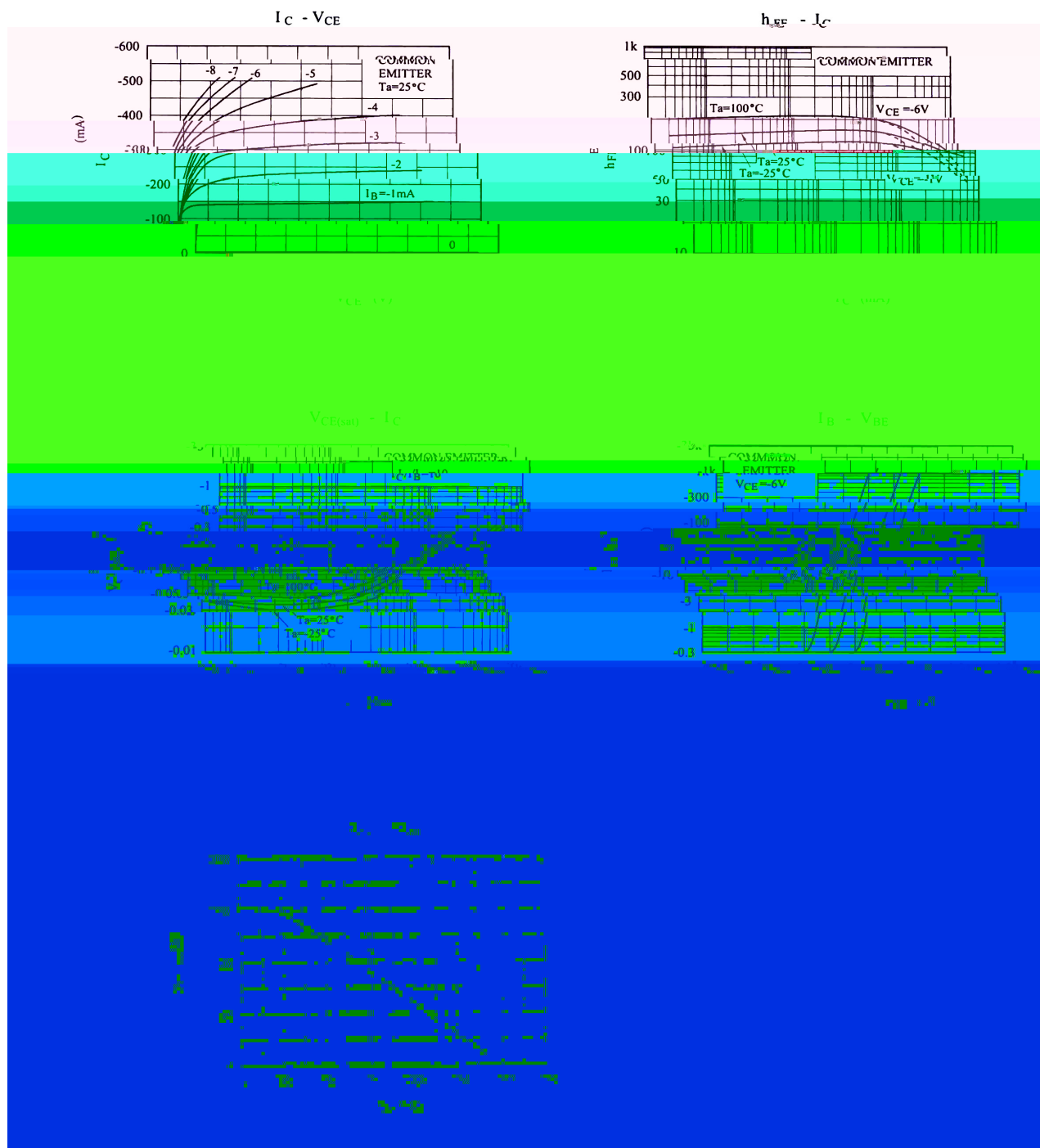
**/ Absolute Maximum Ratings(Ta=25 )**

| Parameter                    | Symbol    | Rating  | Unit |
|------------------------------|-----------|---------|------|
| Collector to Base Voltage    | $V_{CBO}$ | -35     | V    |
| Collector to Emitter Voltage | $V_{CEO}$ | -30     | V    |
| Emitter to Base Voltage      | $V_{EBO}$ | -5.0    | V    |
| Collector Current            | $I_C$     | -500    | mA   |
| Base Current                 | $I_B$     | -50     | mA   |
| Collector Power Dissipation  | $P_C$     | 150     | mW   |
| Junction Temperature         | $T_j$     | 150     |      |
| Storage Temperature Range    | $T_{stg}$ | -55 150 |      |

**/ Electrical Characteristics(Ta=25 )**

| Parameter                               | Symbol        | Test Conditions                      | Min | Typ  | Max   | Unit    |
|-----------------------------------------|---------------|--------------------------------------|-----|------|-------|---------|
| Collector Cut-Off Current               | $I_{CBO}$     | $V_{CB}=-35V$ $I_E=0$                |     |      | -0.1  | $\mu A$ |
| Emitter Cut-Off Current                 | $I_{EBO}$     | $V_{EB}=-5.0V$ $I_C=0$               |     |      | -0.1  | $\mu A$ |
| DC Current Gain                         | $h_{FE(1)}$   | $V_{CE}=-1.0V$ $I_C=-100mA$          | 70  |      | 400   |         |
|                                         | $h_{FE(2)}$   | $V_{CE}=-6.0V$ $I_C=-400mA$          | 25  |      |       |         |
| Collector to Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=-100mA$ $I_B=-10mA$             |     | -0.1 | -0.25 | V       |
| Base-Emitter Voltage                    | $V_{BE}$      | $V_{CE}=-1.0V$ $I_C=-100mA$          |     | -0.8 | -1.0  | V       |
| Transition Frequency                    | $f_T$         | $V_{CE}=-6.0V$ $I_C=-20mA$           |     | 200  |       | MHz     |
| Collector Output Capacitance            | $C_{ob}$      | $V_{CB}=-6.0V$ $I_E=0$<br>$f=1.0MHz$ |     | 13   |       | pF      |

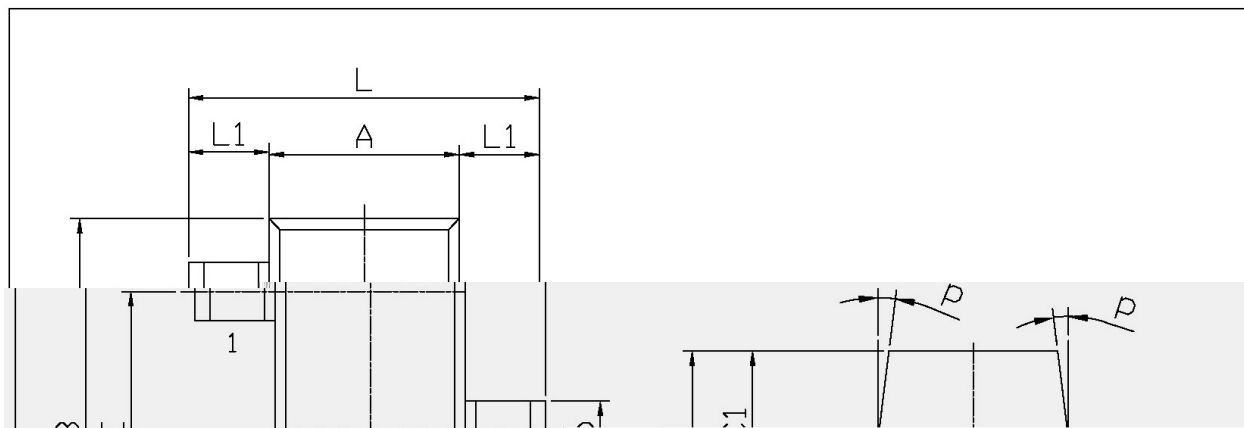
/ Electrical Characteristic Curve



/ Package Dimensions

SOT-23

单位: mm



| Symbol | Min. | Max. | Symbol | Min.    | Max. |
|--------|------|------|--------|---------|------|
| L      | 2.2  | 2.7  | C      | 1.30Max |      |
| L1     | 0.45 | 0.65 | C1     | 0.90    | 1.20 |
| A      | 1.15 | 1.50 | E      | 0.95    | 1.25 |
| E      | 1.70 | 2.10 | M      | 0       | 0.10 |
| E1     | 0.85 | 1.05 | P      | 7°      |      |
| b      | 0.35 | 0.55 |        |         |      |

/ Marking Instructions



H

AZ

O             $h_{FE}$

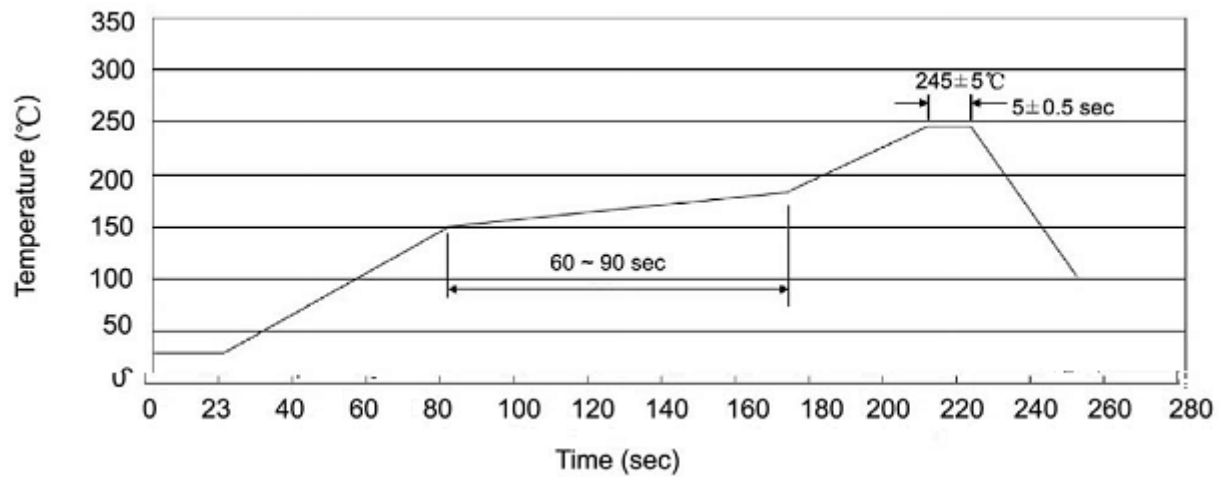
Note:

H            Company Code

AZ           Product Type

O             $h_{FE}$  Classifications Symbol

( ) /



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<br>封装形式 | Units 包装数量         |                         |                        |                              |                        | Dimension 包装尺寸 (unit: mm <sup>3</sup> ) |             |             |
|----------------------|--------------------|-------------------------|------------------------|------------------------------|------------------------|-----------------------------------------|-------------|-------------|
|                      | Units/Reel<br>只/卷盘 | Reels/Inner Box<br>卷盘/盒 | Units/Inner Box<br>只/盒 | Inner Boxes/Outer Box<br>盒/箱 | Units/Outer Box<br>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