## / Descriptions

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

## / Features

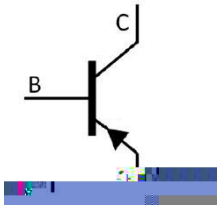
, 2SD1781K

Low VCE(sat),complements the 2SD1781K.

## / Applications

Low frequency amplifier applications.

## / Equivalent Circuit




## / Pinning

PIN1 Base PIN 2 Emitter PIN 3 Collector

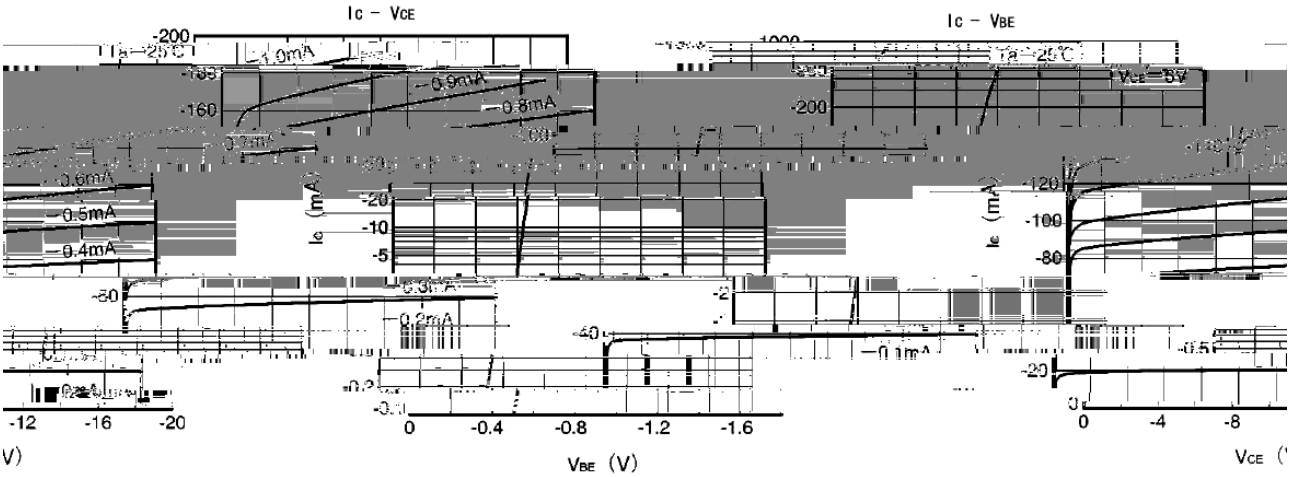
## / $h_{FE}$ Classifications & Marking

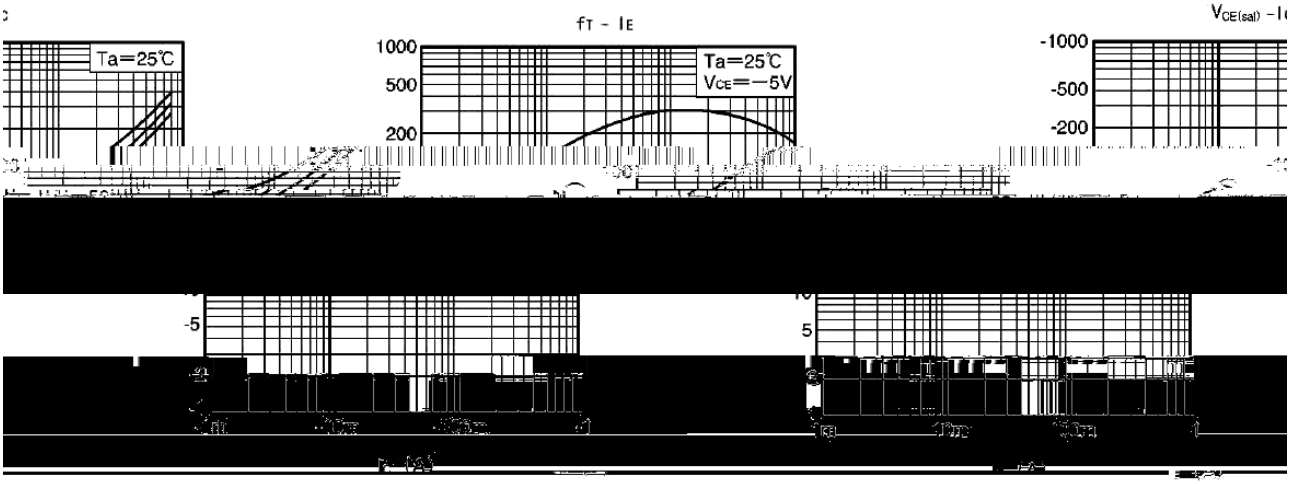
| $h_{FE}$ Classifications Symbol | Q | R |
|---|---|---|
| $h_{FE}$ Range | 120 270 | 180 390 |
| Marking | HAHQ | HAHR |

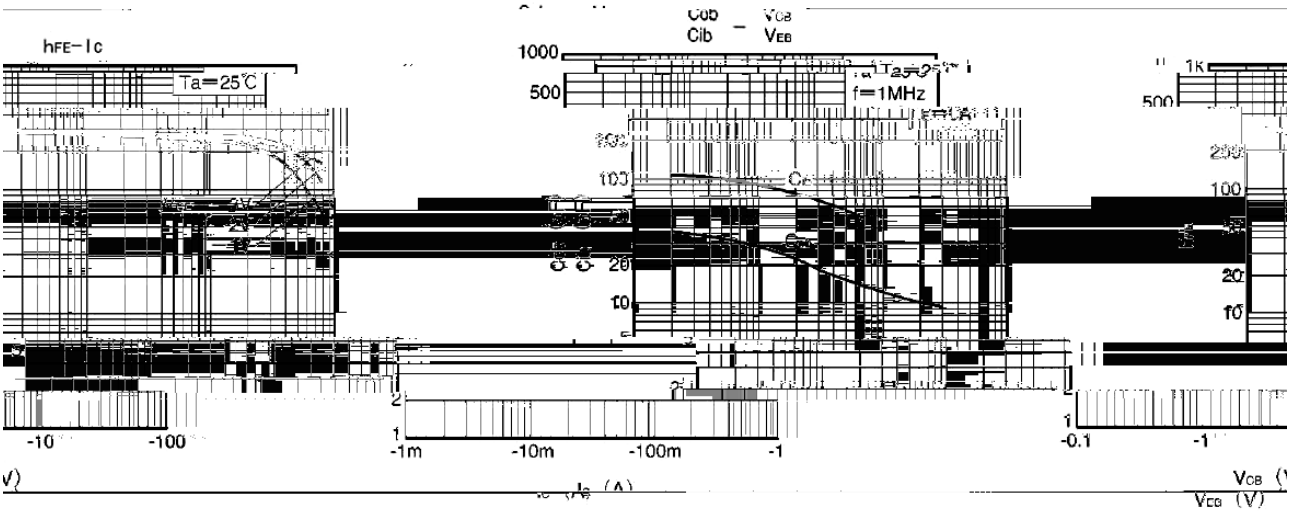
| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Collector to Base Voltage | $V_{CBO}$ | -40 | V |
| Collector to Emitter Voltage | $V_{CEO}$ | -32 | V |
| Emitter to Base Voltage | $V_{EBO}$ | -5.0 | V |
| Collector Current | $I_C$ | -800 | mA |
| Collector Power Dissipation | $P_C$ | 200 | mW |
| Junction Temperature | $T_j$ | 150 | |
| Storage Temperature Range | $T_{stg}$ | -55 150 | |

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Collector-Base Breakdown Voltage | $V_{CBO}$ | $I_C$ =-50μA | -40 | | | V |
| Collector-Emitter Breakdown Voltage | $V_{CEO}$ | $I_C$ =-1.0mA | -32 | | | V |
| Emitter-Base Breakdown Voltage | $V_{EBO}$ | $I_E$=-50μA | -5.0 | | | V |
| Collector Cut-Off Current | $I_{CBO}$ | $V_{CB}$=-20V $I_E$=0 | | | -0.5 | μA |
| Emitter Base Cut-Off Current | $I_{EBO}$ | $V_{EB}$=-4.0V $I_c$=0 | | | -0.5 | μA |
| DC Current Gain | $h_{FE}$ | $V_{CE}$=-3.0V $I_C$=-100mA | 120 | | 390 | |
| Collector to Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_{cl}$ | | | | |

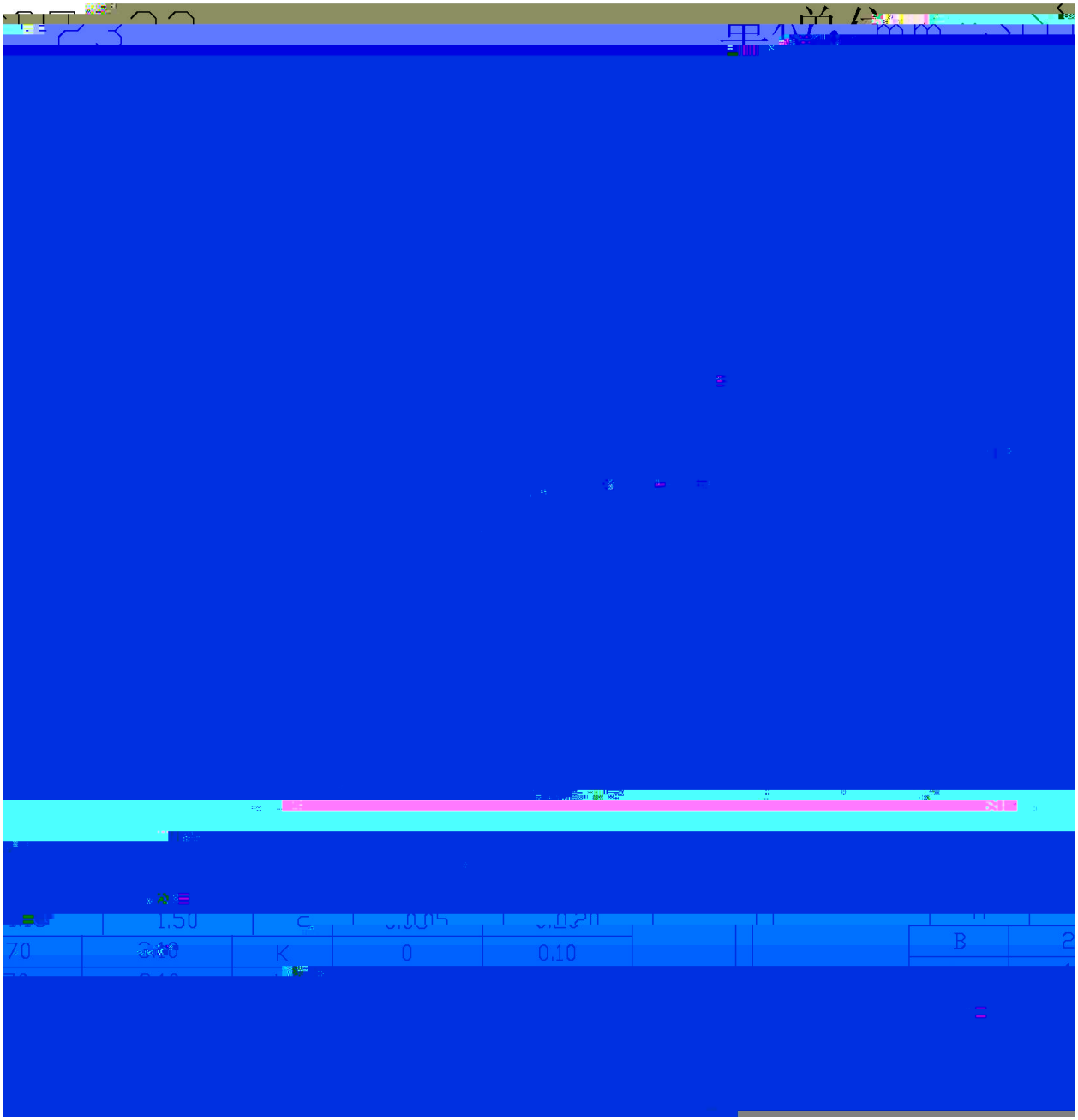
## / Electrical Characteristic Curve



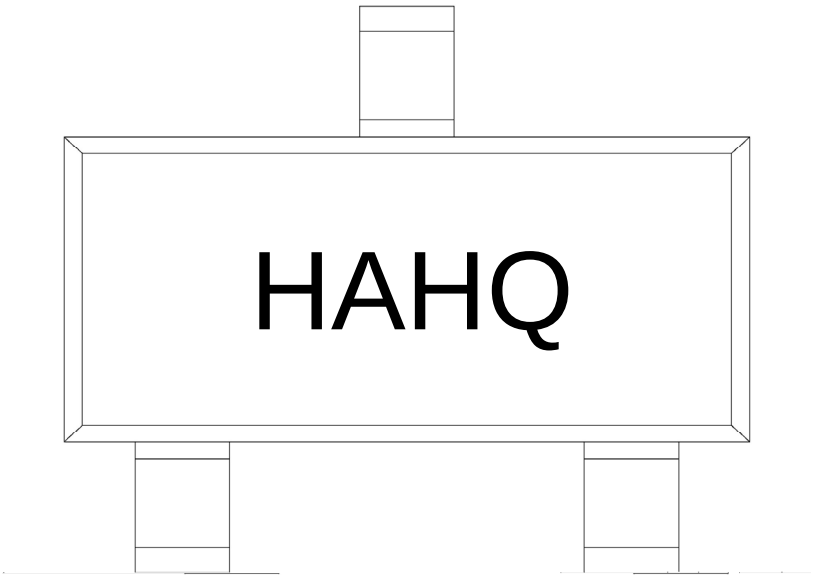



## / Package Dimensions



## / Marking Instructions




H

AH

Q: $h_{FE}$

Note:

H: Company Code

AH: Product Type Code

Q: $h_{FE}$ Classifications Symbol Code

## ( ) / Temperature Profile for IR Reflow Soldering(Pb [