

## / Descriptions

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

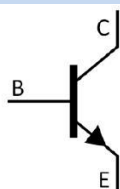
## / Features

Low  $V_{CE(sat)}$ , low  $R_{on}$ , high  $h_{FE}$ .

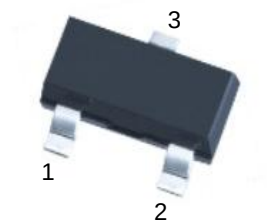
## / Applications

Low voltage output amplifier, audio muting, DC-DC converter.

## / Equivalent Circuit



## / Pinning



PIN1   Base          PIN 2   Emitter          PIN 3   Collector

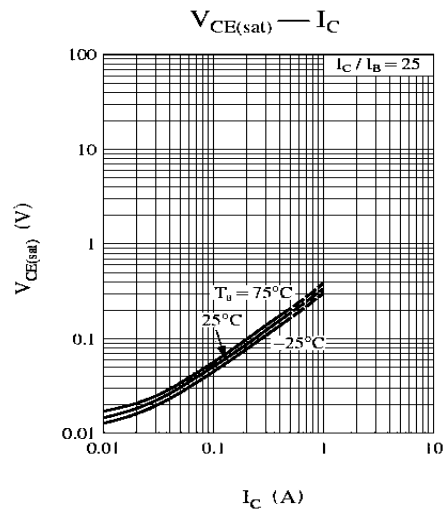
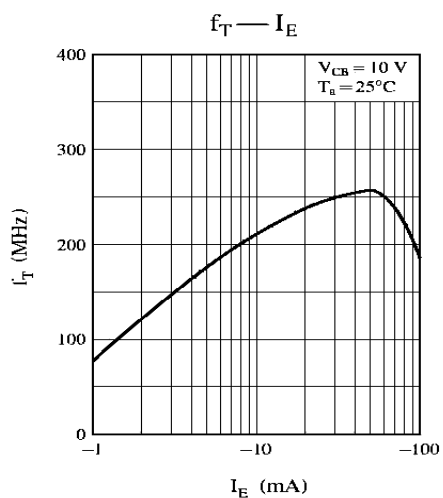
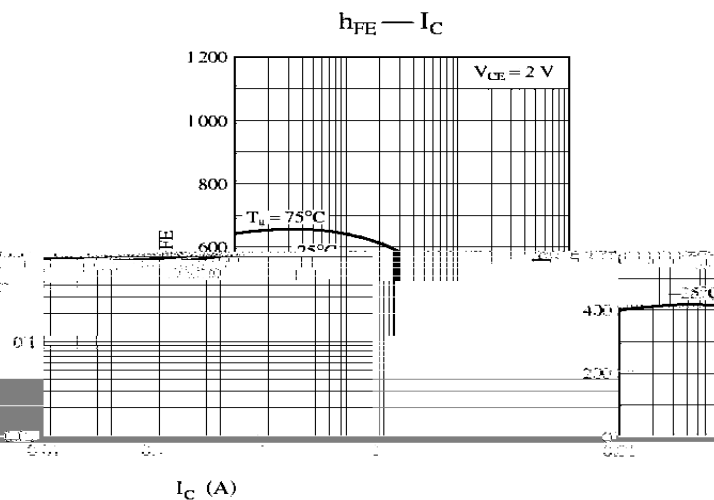
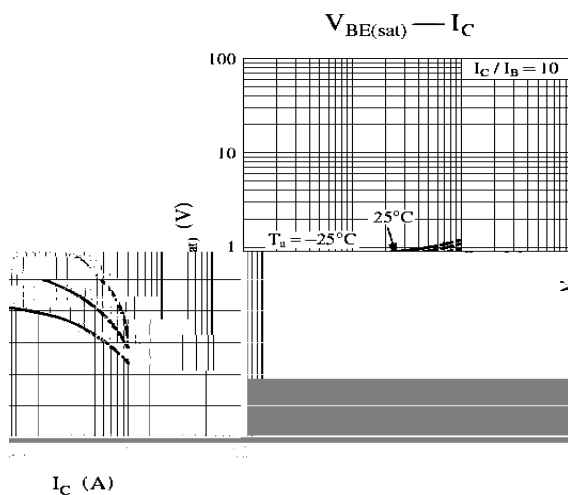
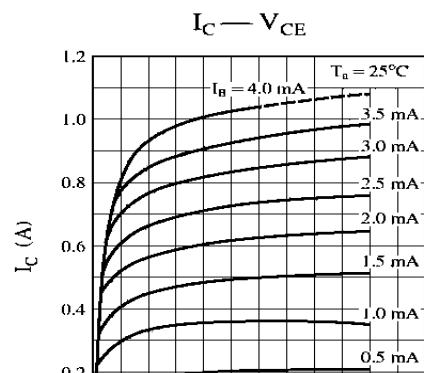
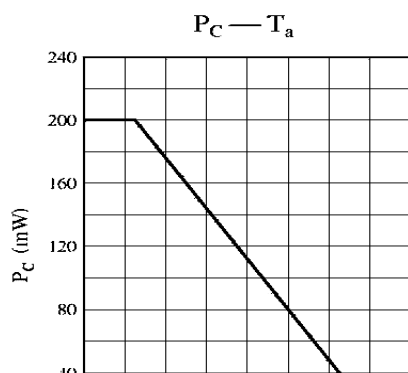
## / $h_{FE}$ Classifications & Marking

|                |         |
|----------------|---------|
| $h_{FE}$ Range | 200~800 |
| Marking        | 1DH     |

| Parameter                    | Symbol    | Rating  | Unit |
|------------------------------|-----------|---------|------|
| Collector to Base Voltage    | $V_{CBO}$ | 25      | V    |
| Collector to Emitter Voltage | $V_{CEO}$ | 20      | V    |
| Emitter to Base Voltage      | $V_{EBO}$ | 12      | V    |
| Collector Current            | $I_C$     | 500     | mA   |
| Peak Collector Current       | $I_{CP}$  | 1000    | mA   |
| Collector Power Dissipation  | $P_C$     | 200     | mW   |
| Junction Temperature         | $T_j$     | 150     |      |
| Storage Temperature Range    | $T_{stg}$ | -55~150 |      |

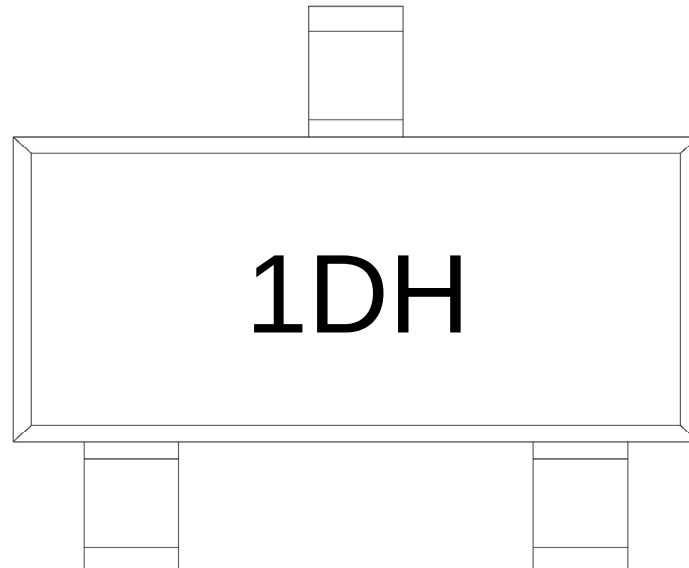
4P)S.

/ Electrical Characteristic Curve





/ Marking Instructions



1D

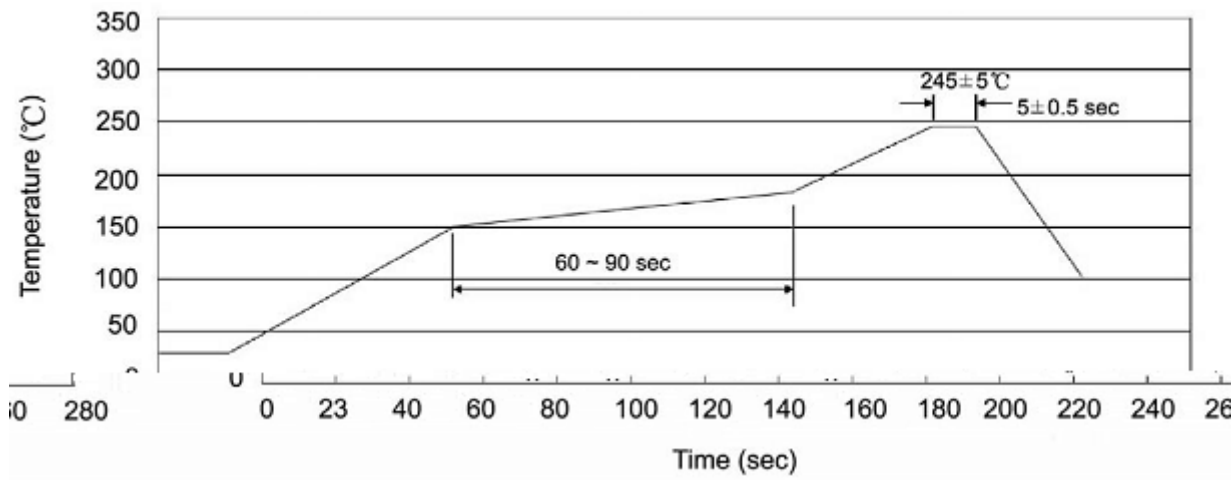
H

Note:

1D: Product Type Code

H: Company Code

( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)



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" x8                                   | 180×120×180 | 390×385×205 |

/ Notices