

Silicon NPN Power Transistors

2SC3423

DESCRIPTION

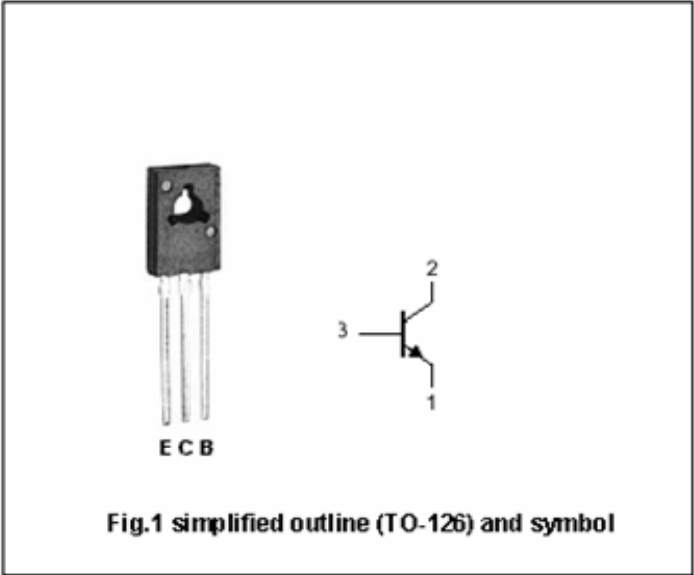
- With TO-126 package
- Complement to type 2SA1360
- High transition frequency

APPLICATIONS

- Audio frequency amplifier applications

PINNING

| PIN | DESCRIPTION                          |
|-----|--------------------------------------|
| 1   | Emitter                              |
| 2   | Collector;connected to mounting base |
| 3   | Base                                 |



Absolute maximum ratings(Ta=25°C)

| SYMBOL           | PARAMETER                 | CONDITIONS           | VALUE    | UNIT |
|------------------|---------------------------|----------------------|----------|------|
| V <sub>CBO</sub> | Collector-base voltage    | Open emitter         | 150      | V    |
| V <sub>CEO</sub> | Collector-emitter voltage | Open base            | 150      | V    |
| V <sub>EBO</sub> | Emitter-base voltage      | Open collector       | 5        | V    |
| I <sub>C</sub>   | Collector current         |                      | 50       | mA   |
| I <sub>B</sub>   | Base current              |                      | 5        | mA   |
| P <sub>D</sub>   | Total power dissipation   | T <sub>a</sub> =25°C | 1.2      | W    |
|                  |                           | T <sub>C</sub> =25°C | 5        |      |
| T <sub>j</sub>   | Junction temperature      |                      | 150      | °C   |
| T <sub>stg</sub> | Storage temperature       |                      | -55~+150 | °C   |

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## CHARACTERISTICS

Tj=25°C unless otherwise specified

| SYMBOL        | PARAMETER                            | CONDITIONS                  | MIN | TYP. | MAX | UNIT    |
|---------------|--------------------------------------|-----------------------------|-----|------|-----|---------|
| $V_{(BR)CEO}$ | Collector-emitter breakdown voltage  | $I_C=1mA ; I_B=0$           | 150 |      |     | V       |
| $V_{CEsat}$   | Collector-emitter saturation voltage | $I_C=10mA ; I_B=1mA$        |     |      | 1.0 | V       |
| $V_{BE}$      | Base-emitter on voltage              | $I_C=10mA ; V_{CE}=5V$      |     |      | 0.8 | V       |
| $I_{CBO}$     | Collector cut-off current            | $V_{CB}=150V ; I_E=0$       |     |      | 0.1 | $\mu A$ |
| $I_{EBO}$     | Emitter cut-off current              | $V_{EB}=5V ; I_C=0$         |     |      | 0.1 | $\mu A$ |
| $h_{FE}$      | DC current gain                      | $I_C=10mA ; V_{CE}=5V$      | 80  |      | 240 |         |
| $C_{ob}$      | Output capacitance                   | $I_E=0 ; V_{CB}=10V f=1MHz$ |     | 1.8  |     | pF      |
| $f_T$         | Transition frequency                 | $I_C=10mA ; V_{CE}=5V$      |     | 200  |     | MHz     |

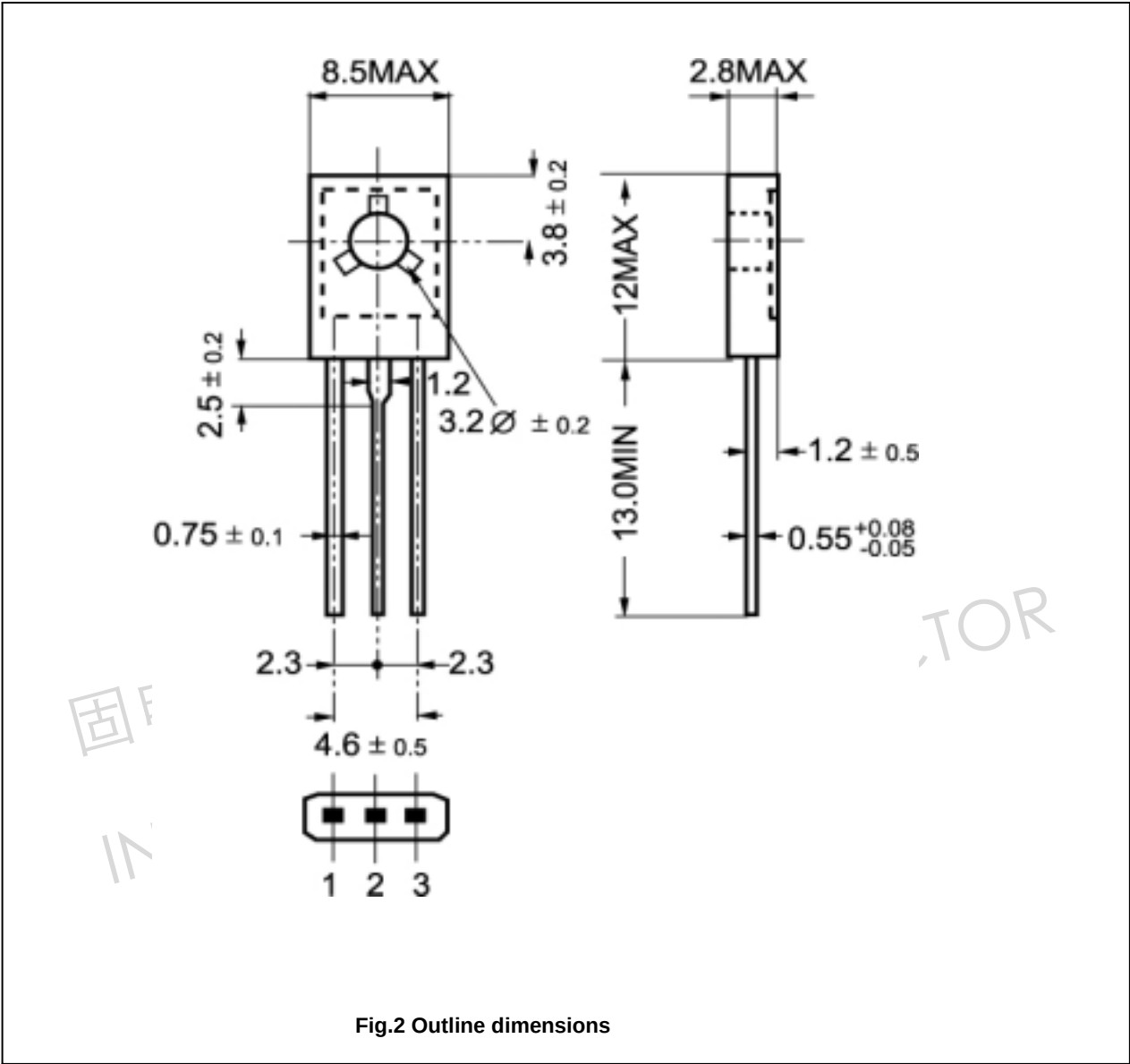
◆  $h_{FE}$  Classifications

| O      | Y       |
|--------|---------|
| 80-160 | 120-240 |

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PACKAGE OUTLINE



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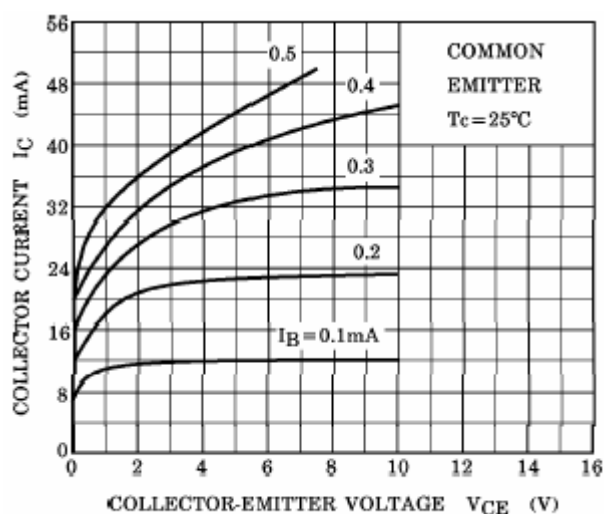


Fig.3 Static Characteristic

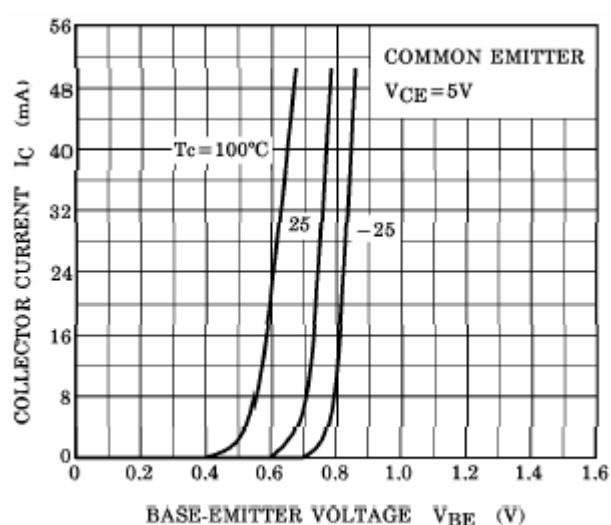
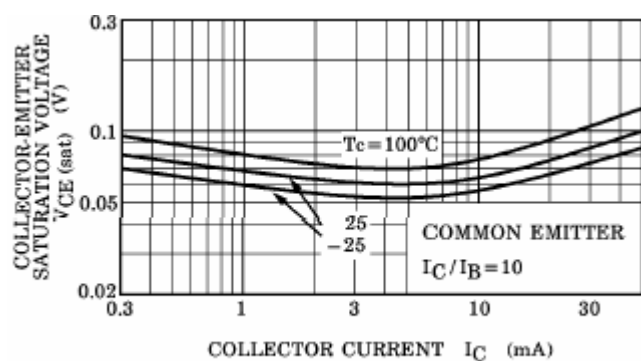
Fig.4  $I_C - V_{BE}$ 

Fig.5 Collector-Emitter Saturation Voltage

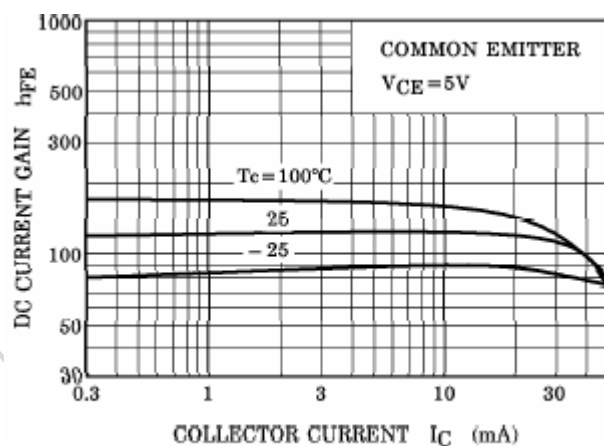


Fig.6 DC current Gain

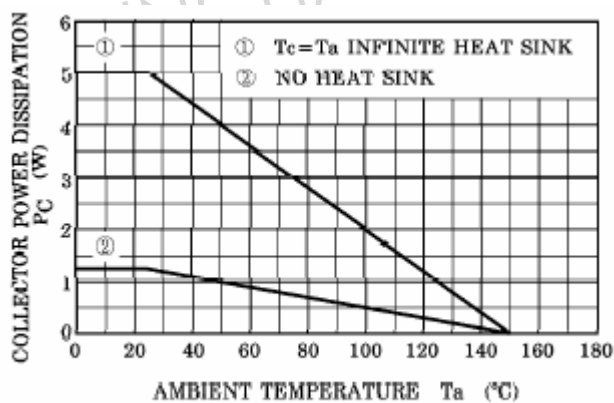


Fig.7 Power Derating