

Silicon NPN Power Transistors

2SC2258

DESCRIPTION

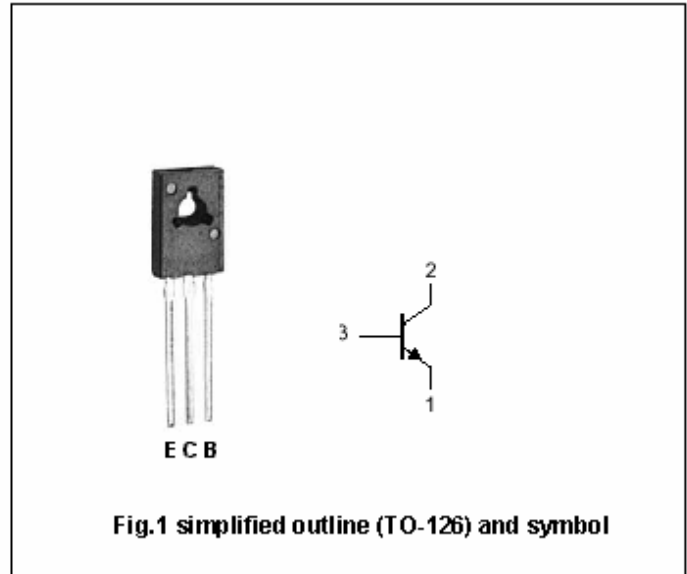
- With TO-126 package
- High transition frequency f_T
- High collector-emitter voltage V_{CEO}

APPLICATIONS

- For high breakdown voltage general amplification
- For video output amplification

PINNING

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

Absolute maximum ratings($T_a=25^\circ\text{C}$)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|-----------|-----------------------------|----------------|-------------------|------|
| V_{CBO} | Collector-base voltage | Open emitter | 250 | V |
| V_{CEO} | Collector-emitter voltage | Open base | 250 | V |
| V_{EBO} | Emitter-base voltage | Open collector | 7 | V |
| I_C | Collector current | | 0.1 | A |
| I_{CM} | Collector current-peak | | 0.15 | A |
| P_C | Collector power dissipation | $T_C=25$ | 1.2 ^{*1} | W |
| | | | 4 ^{*2} | |
| T_j | Junction temperature | | 150 | |
| T_{stg} | Storage temperature | | -55 ~ +150 | |

Note :^{*1}: Without heat sink^{*2}: With a 100 × 100 × 2 mm A1 heat sink

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CHARACTERISTICS

T_j=25 unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|----------------------|--------------------------------------|---|-----|------|-----|------|
| I _{CER} | Collector cutoff current | V _{CE} =250V;R _{BE} =100k | | | 100 | μ A |
| V _{(BR)EBO} | Emitter-base breakdown voltage | I _E =0.1mA ;I _C =0 | 7 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =50mA ;I _B =5m A | | | 1.2 | V |
| V _{BE} | Base-emitter voltage | I _C =40mA ; V _{CE} =20V | | | 1.2 | V |
| h _{FE-1} | DC current gain | I _C =40mA ; V _{CE} =20V | 40 | | | |
| h _{FE-2} | DC current gain | I _C =5mA ; V _{CE} =50V | 30 | | | |
| C _{OB} | Output capacitance | I _E =0; V _{CB} =50V;f=1MHz | | 3 | 4.5 | pF |
| f _T | Transition frequency | I _E =-10mA ; V _{CE} =10V,f=200MHz | | 100 | | MHz |

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PACKAGE OUTLINE

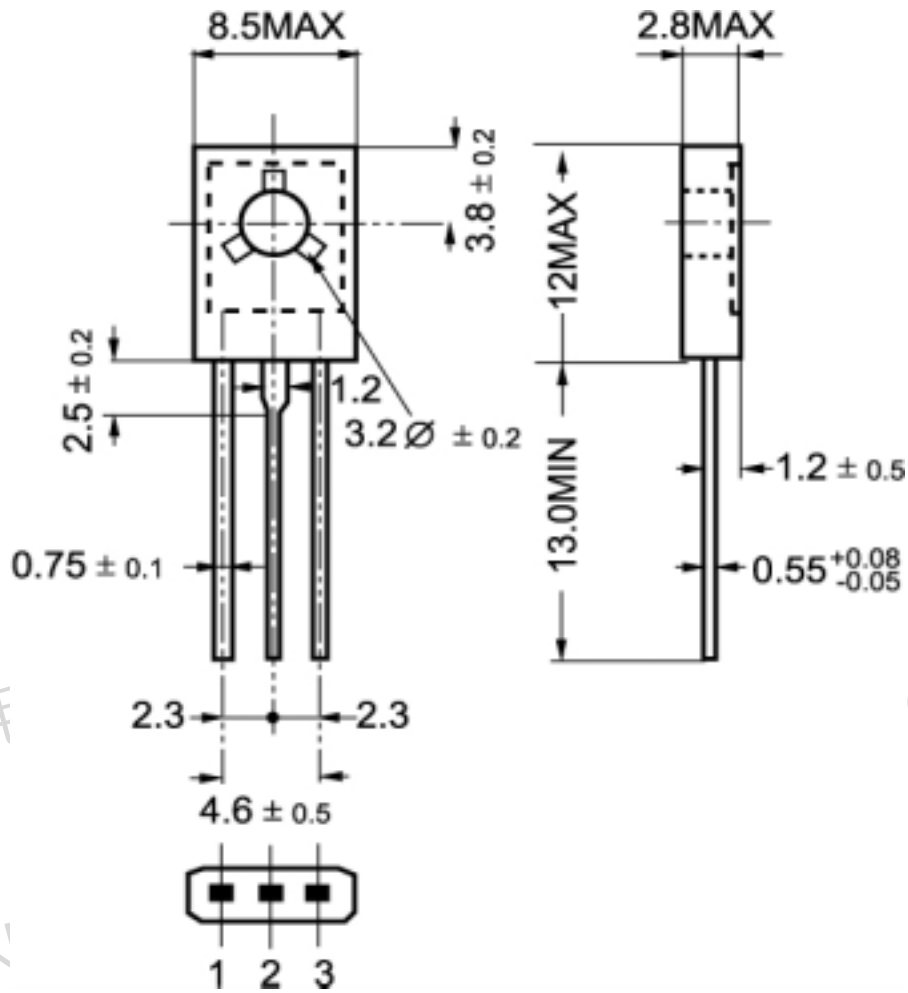


Fig.2 Outline dimensions

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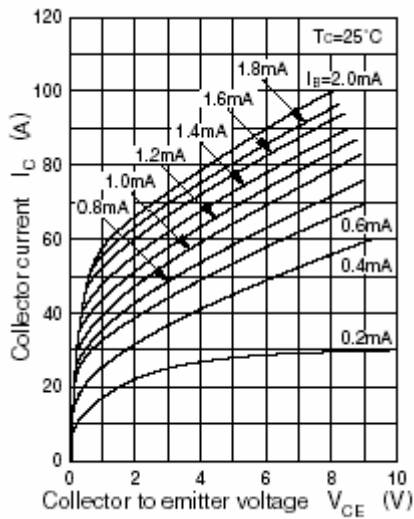


Fig.3 Static Characteristic

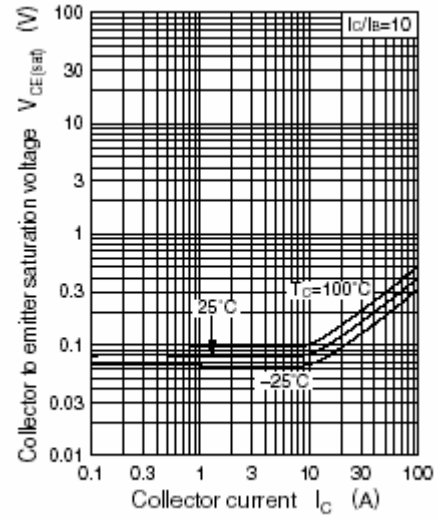


Fig.4 Collector-Emitter Saturation Voltage

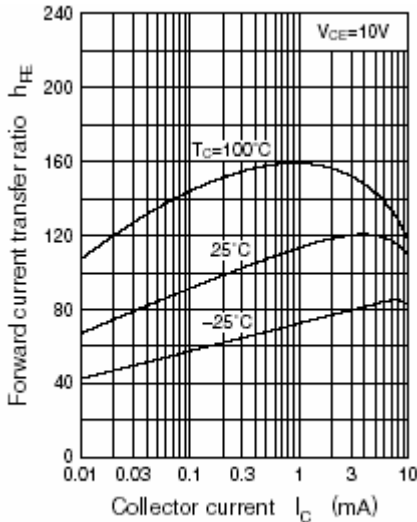


Fig.5 DC current Gain

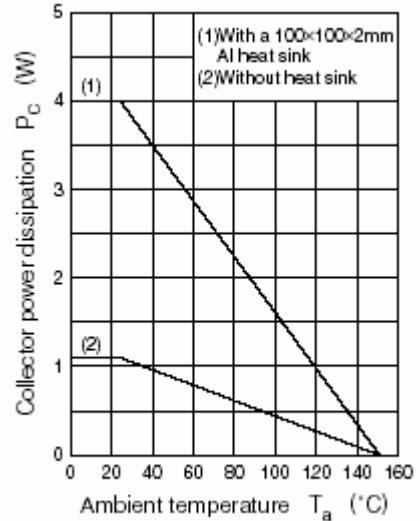


Fig.6 Power Derating