

Silicon NPN Power Transistors

2SC2562

DESCRIPTION

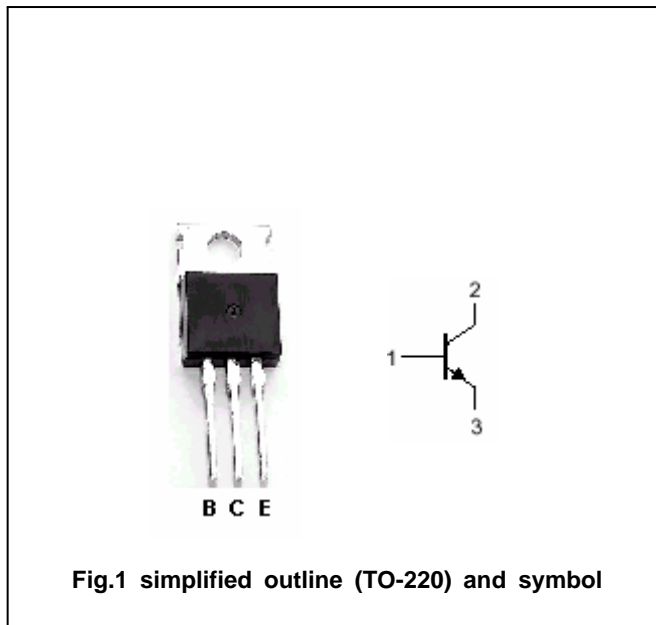
- With TO-220 package
- Complement to type 2SA1012
- Low saturation voltage
- High speed switching time

APPLICATIONS

- High current switching applications

PINNING

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



Absolute maximum ratings(Ta=25)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|------------------|---------------------------|--------------------|---------|------|
| V _{CBO} | Collector-base voltage | Open emitter | 60 | V |
| V _{CEO} | Collector-emitter voltage | Open base | 50 | V |
| V _{EBO} | Emitter-base voltage | Open collector | 5 | V |
| I _C | Collector current | | 5 | A |
| I _B | Base current | | 1 | A |
| P _T | Total power dissipation | T _C =25 | 25 | W |
| T _j | Junction temperature | | 150 | |
| T _{stg} | Storage temperature | | -55~150 | |

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CHARACTERISTICS

T_j=25 unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|----------------------|--------------------------------------|---|-----|------|-----|------|
| V _{(BR)CEO} | Base-emitter breakdown voltage | I _C =10mA, I _B =0 | 50 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =3A; I _B =0.15A | | | 0.4 | V |
| V _{BEsat} | Base-emitter saturation voltage | I _C =3A; I _B =0.15A | | | 1.2 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =50V; I _E =0 | | | 1 | μA |
| I _{EBO} | Emitter cut-off current | V _{EB} =5V; I _C =0 | | | 1 | μA |
| h _{FE-1} | DC current gain | I _C =1A; V _{CE} =1V | 70 | | 240 | |
| h _{FE-2} | DC current gain | I _C =3A; V _{CE} =1V | 30 | | | |
| f _T | Transition frequency | I _C =1A; V _{CE} =4V | | 120 | | MHz |
| C _{ob} | Output capacitance | f=1MHz; V _{CB} =10V | | 80 | | pF |

Switching times

| | | | | | | |
|-----------------|--------------|--|--|-----|--|----|
| t _{on} | Turn-on time | I _C =3A; I _{B1} =- I _{B2} =0.15A R _L =10Ω, V _{CC} =30V | | 0.1 | | μs |
| t _s | Storage time | | | 1.0 | | μs |
| t _f | Fall time | | | 0.1 | | μs |

◆ h_{FE-1} Classifications

| O | Y |
|--------|---------|
| 70-140 | 120-240 |

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PACKAGE OUTLINE

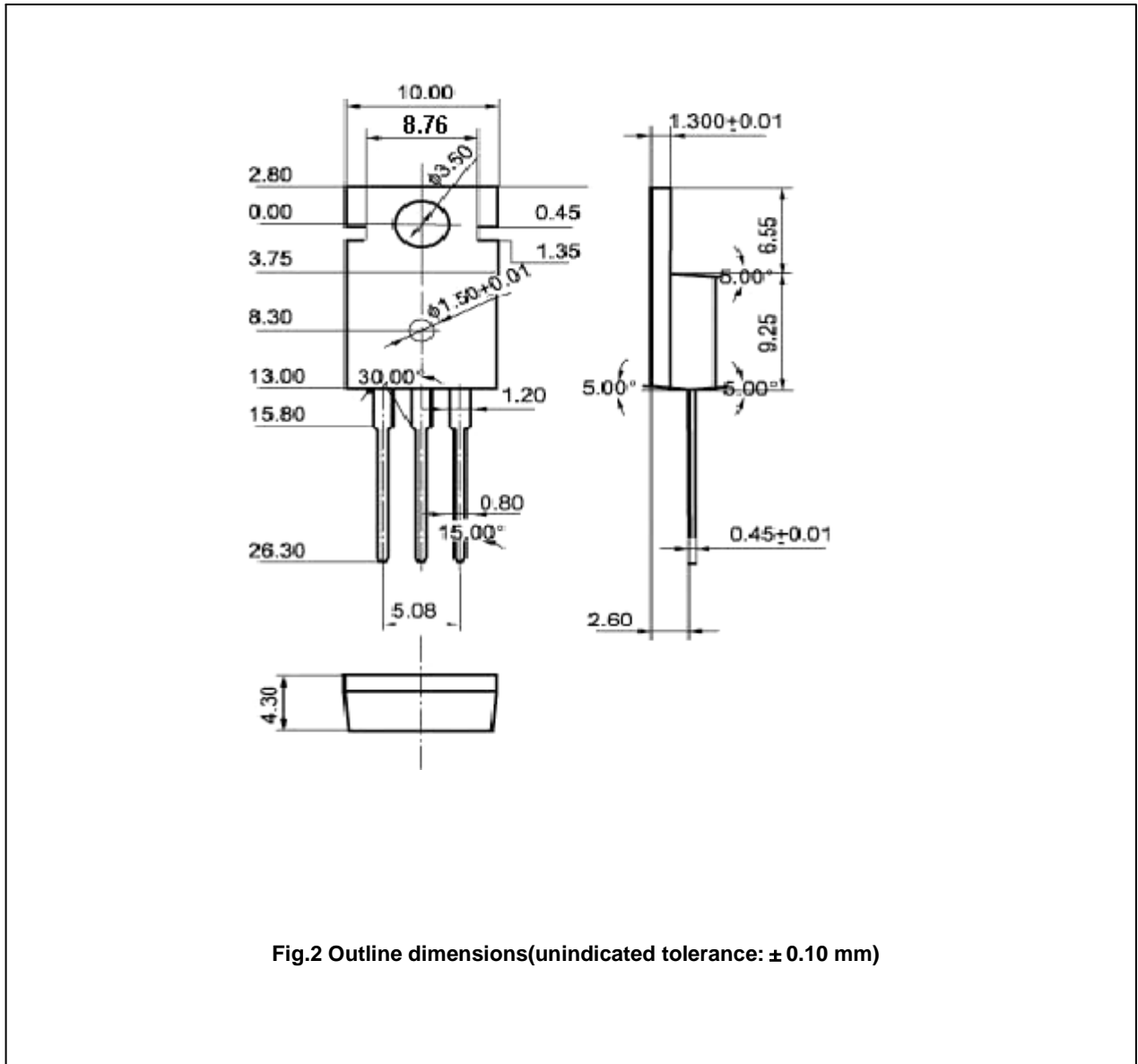


Fig.2 Outline dimensions(unindicated tolerance: ± 0.10 mm)

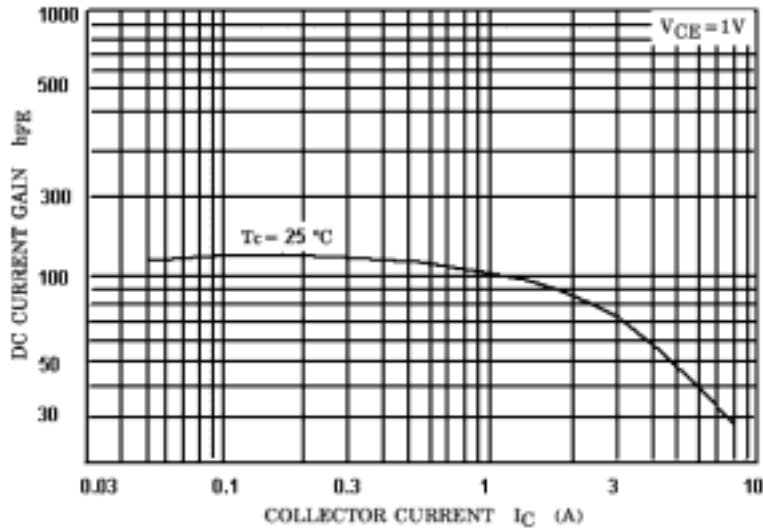


Fig.3 DC current Gain

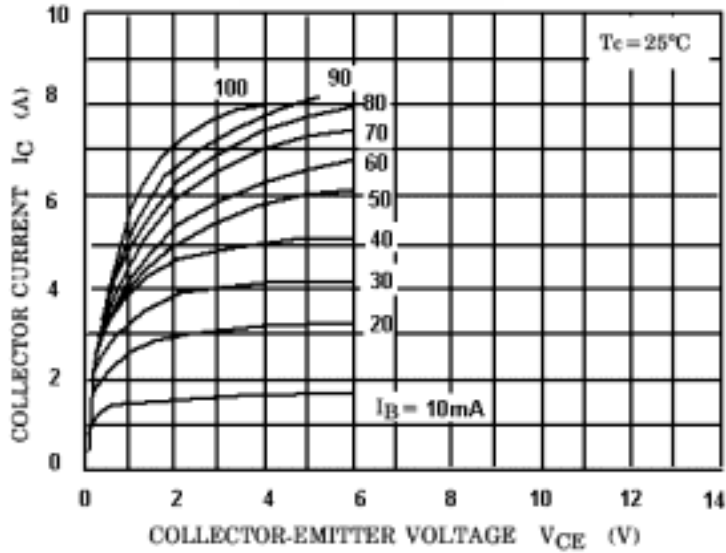


Fig.4 Static Characteristic

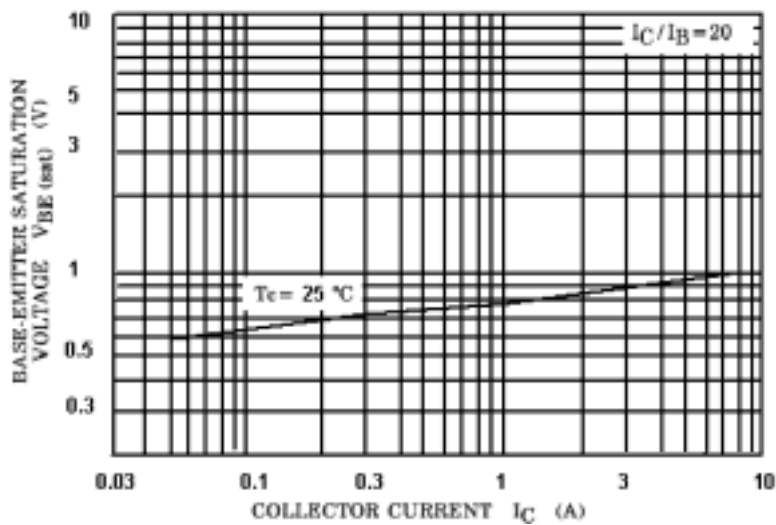


Fig.5 Base-Emitter Saturation Voltage

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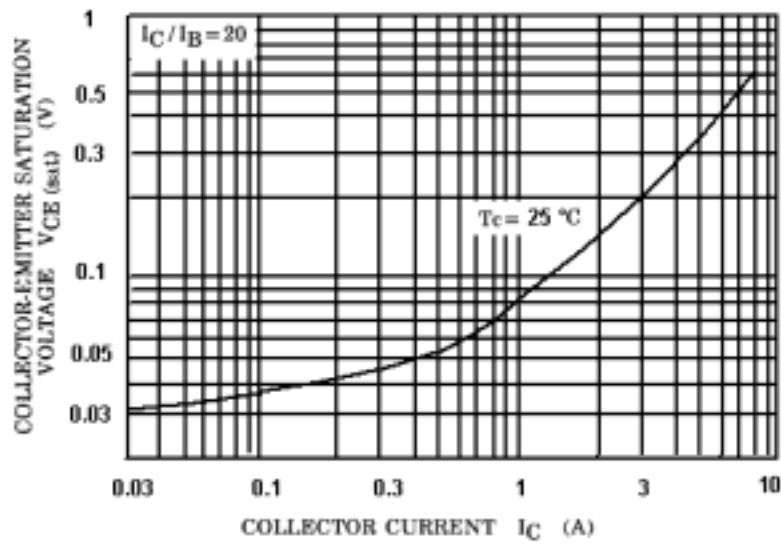


Fig.6 Collector-Emitter Saturation Voltage

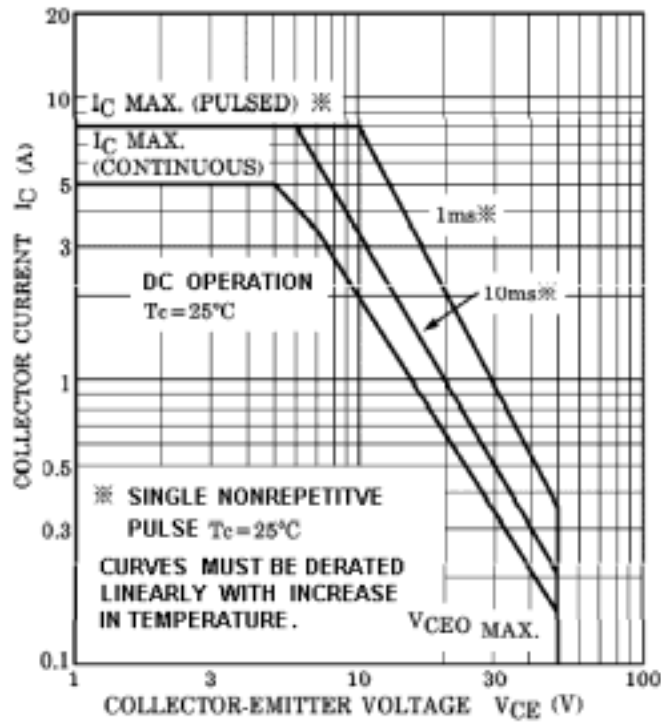


Fig.7 Safe Operating Area