

Silicon NPN Power Transistors

2SC4205

DESCRIPTION

- With TO-220C package
- High voltage ;high speed

APPLICATIONS

- For use in high voltage and power switching applications

PINNING

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

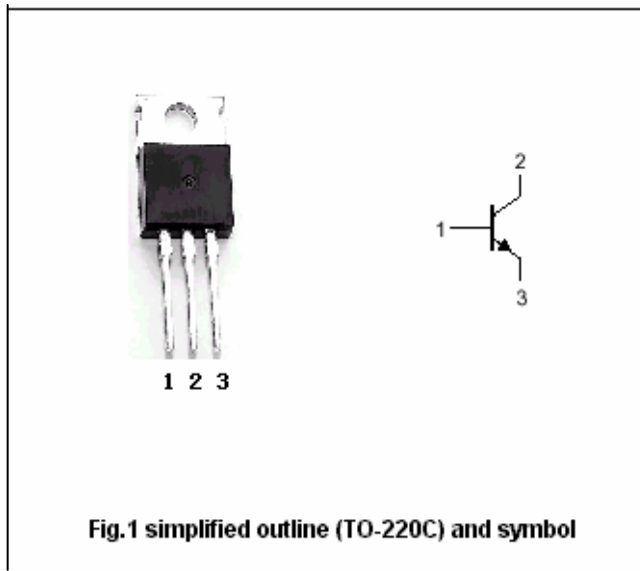


Fig.1 simplified outline (TO-220C) and symbol

Absolute maximum ratings(Ta=25°C)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|------------------|---------------------------|----------------------|---------|------|
| V _{CBO} | Collector-base voltage | Open emitter | 400 | V |
| V _{CEO} | Collector-emitter voltage | Open base | 400 | V |
| V _{EBO} | Emitter-base voltage | Open collector | 7 | V |
| I _C | Collector current | | 5 | A |
| P _C | Collector dissipation | T _C =25°C | 40 | W |
| T _j | Junction temperature | | 150 | °C |
| T _{stg} | Storage temperature | | -55~150 | °C |

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CHARACTERISTICS

T_j=25°C unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|----------------------|--------------------------------------|--|-----|------|-----|------|
| V _{(BR)CEO} | Collector-emitter breakdown voltage | I _C =10mA; I _B =0 | 400 | | | V |
| V _{(BR)CBO} | Collector-base breakdown voltage | I _C =1mA; I _E =0 | 400 | | | V |
| V _{(BR)EBO} | Emitter-base breakdown voltage | I _E =1mA; I _C =0 | 7 | | | V |
| V _{CE(sat)} | Collector-emitter saturation voltage | I _C =5A; I _B =1A | | | 1.0 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =400V; I _E =0 | | | 10 | μA |
| I _{EBO} | Emitter cut-off current | V _{CE} =7V; I _B =0 | | | 10 | μA |
| h _{FE} | DC current gain | I _C =3A; V _{CE} =5V | 16 | | 50 | |
| f _T | Transition frequency | I _C =0.5A; V _{CE} =10V | | 15 | | MHz |

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PACKAGE OUTLINE



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