

Silicon NPN Power Transistors

2SC1985 2SC1986

DESCRIPTION

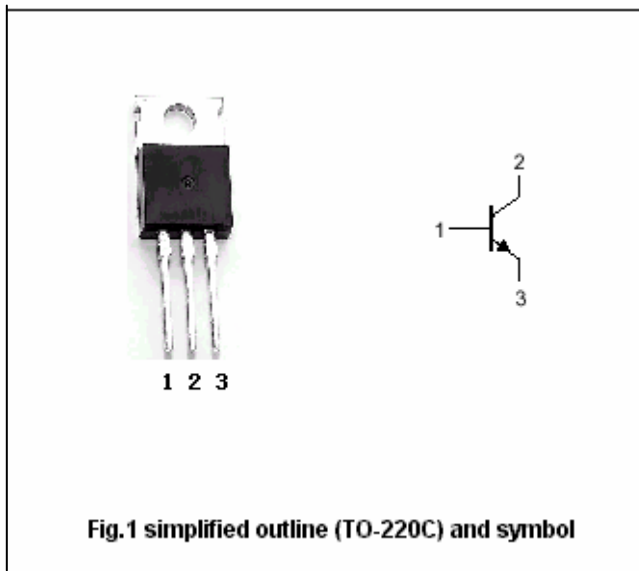
- With TO-220 package
- Complement to type 2SA770/771
- Low collector saturation voltage

APPLICATIONS

- For general and industrial purpose applications

PINNING

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



Absolute maximum ratings(Ta=25°C)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|------------------|-----------------------------|----------------------|---------|------|
| V _{CBO} | Collector-base voltage | 2SC1985 | 80 | V |
| | | 2SC1986 | 100 | |
| V _{CEO} | Collector-emitter voltage | 2SC1985 | 60 | V |
| | | 2SC1986 | 80 | |
| V _{EBO} | Emitter-base voltage | Open collector | 6 | V |
| I _C | Collector current | | 6 | A |
| I _B | Base current | | 3 | A |
| P _C | Collector power 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 | 2SC1985 | I _C =25mA, I _B =0 | 60 | | V |
| | | 2SC1986 | | 80 | | |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =3A; I _B =0.3A | | | 1.0 | V |
| I _{CBO} | Collector cut-off current | 2SC1985 | | | 1.0 | mA |
| | | 2SC1986 | | | | |
| I _{EBO} | Emitter cut-off current | V _{EB} =6V; I _C =0 | | | 1.0 | mA |
| h _{FE} | DC current gain | I _C =1A; V _{CE} =4V | 40 | | | |
| f _T | Transition frequency | I _C =0.5A; V _{CE} =12V | | 10 | | MHz |

Switching times

| | | | | | | |
|------------------|--------------|--|--|------|--|----|
| t _r | Rise time | I _C =3A; V _{CC} =9V I _{B1} =-I _{B2} =0.3A; R _L =3Ω | | 1.1 | | μs |
| t _{stg} | Storage time | | | 1.8 | | μs |
| t _f | Fall time | | | 0.55 | | μs |

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PACKAGE OUTLINE



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

This datasheet has been downloaded from:

www.DatasheetCatalog.com

Datasheets for electronic components.