

Silicon PNP Power Transistors

2SA985 2SA985A

DESCRIPTION

- With TO-220 package
- Complement to type 2SC2275/2275A
- High breakdown voltage

APPLICATIONS

- For low frequency and high frequency power amplifier applicatons

PINNING

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

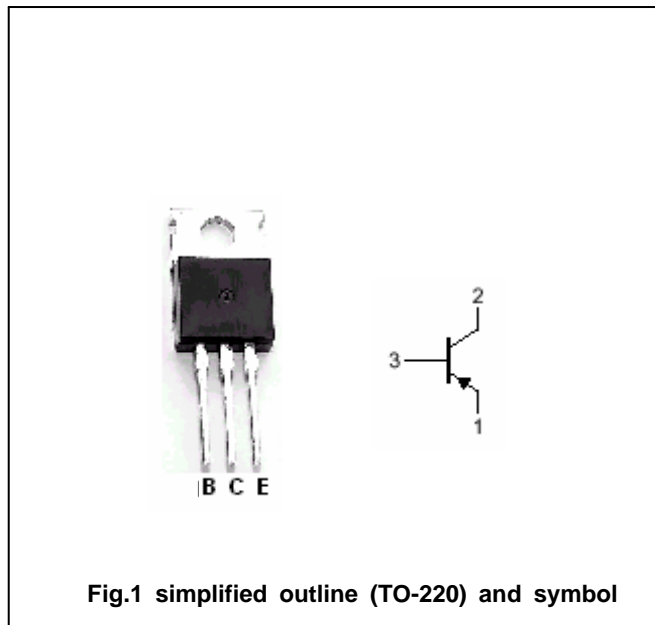


Fig.1 simplified outline (TO-220) and symbol

Absolute maximum ratings(Ta=25)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|------------------|---------------------------|--------------------|---------|------|
| V _{CBO} | Collector-base voltage | 2SA985 | -120 | V |
| | | 2SA985A | -150 | |
| V _{CEO} | Collector-emitter voltage | 2SA985 | -120 | V |
| | | 2SA985A | -150 | |
| V _{EBO} | Emitter-base voltage | Open collector | -5 | V |
| I _C | Collector current | | -1.5 | A |
| I _{CM} | Collector current-peak | | -3.0 | A |
| I _B | Base current | | -0.3 | A |
| P _T | Total power dissipation | T _a =25 | 1.5 | W |
| | | T _C =25 | 25 | |
| 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} | Collector-emitter breakdown voltage | 2SA985 | -120 | | | V |
| | | 2SA985A | -150 | | | |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =-1A; I _B =-0.1A | | -0.3 | -2.0 | V |
| V _{BEsat} | Base-emitter saturation voltage | I _C =-1A; I _B =-0.1A | | -0.9 | -1.5 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =-120V; I _E =0 | | | -1.0 | μA |
| I _{EBO} | Emitter cut-off current | V _{EB} =-3V; I _C =0 | | | -1.0 | μA |
| h _{FE-1} | DC current gain | I _C =-5mA; V _{CE} =-5V | 35 | | | |
| h _{FE-2} | DC current gain | I _C =-0.3A; V _{CE} =-5V | 60 | 150 | 320 | |
| C _{OB} | Output capacitance | I _E =0; V _{CB} =-10V, f=1MHz | | 29 | | pF |
| f _T | Transition frequency | I _C =-0.2A; V _{CE} =-5V | | 180 | | MHz |

◆ h_{FE-2} Classifications

| R | Q | P |
|--------|---------|---------|
| 60-120 | 100-200 | 160-320 |

