

Silicon PNP Power Transistors

2SA968 2SA968A 2SA968B

DESCRIPTION

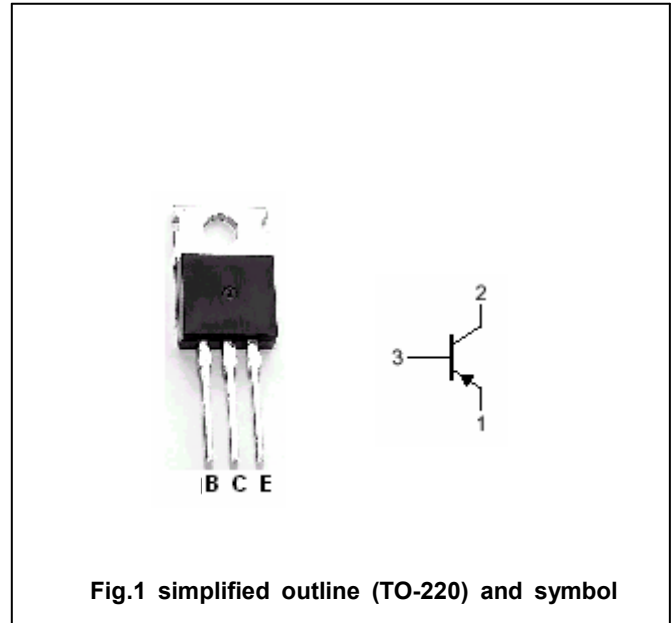
- With TO-220 package
- Complement to type 2SC2238
- High breakdown voltage

APPLICATIONS

- Power amplifier applications
- Driver stage amplifier applications

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 | 2SA968 | -160 | V |
| | | 2SA968A | -180 | |
| | | 2SA968B | -200 | |
| V_{CEO} | Collector-emitter voltage | 2SA968 | -160 | V |
| | | 2SA968A | -180 | |
| | | 2SA968B | -200 | |
| V_{EBO} | Emitter-base voltage | Open collector | -5 | V |
| I_C | Collector current | | -1.5 | A |
| I_E | Emitter current | | 1.5 | A |
| P_T | Total power dissipation | $T_C=25^\circ\text{C}$ | 25 | W |
| T_j | Junction temperature | | 150 | $^\circ\text{C}$ |
| T_{stg} | Storage temperature | | -55~150 | $^\circ\text{C}$ |

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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 | 2SA968 | -160 | | | V |
| | | 2SA968A | -180 | | | |
| | | 2SA968B | -200 | | | |
| V _{(BR)EBO} | Emitter-base breakdown voltage | I _E =-1mA; I _C =0 | -5 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =-0.5A; I _B =-50mA | | | -1.5 | V |
| V _{BE} | Base-emitter on voltage | I _C =-500mA; V _{CE} =-5V | | | -1.0 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =-160V; I _E =0 | | | -1.0 | μA |
| I _{EBO} | Emitter cut-off current | V _{EB} =-5V; I _C =0 | | | -1.0 | μA |
| h _{FE} | DC current gain | I _C =-100mA; V _{CE} =-5V | 70 | | 240 | |
| C _{ob} | Output capacitance | I _E =0; V _{CB} =-10V, f=1MHz | | 30 | | pF |
| f _T | Transition frequency | I _C =-100mA; V _{CE} =10V | | 100 | | MHz |

◆ h_{FE} Classifications

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

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PACKAGE OUTLINE



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