

Silicon PNP Power Transistors

2SA1133 2SA1133A

DESCRIPTION

- With TO-220 package
- High breakdown voltage
- High power dissipation
- Complement to type 2SC2660/2660A

APPLICATIONS

- For power amplifier and TV vertical deflection output applications

PINNING

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

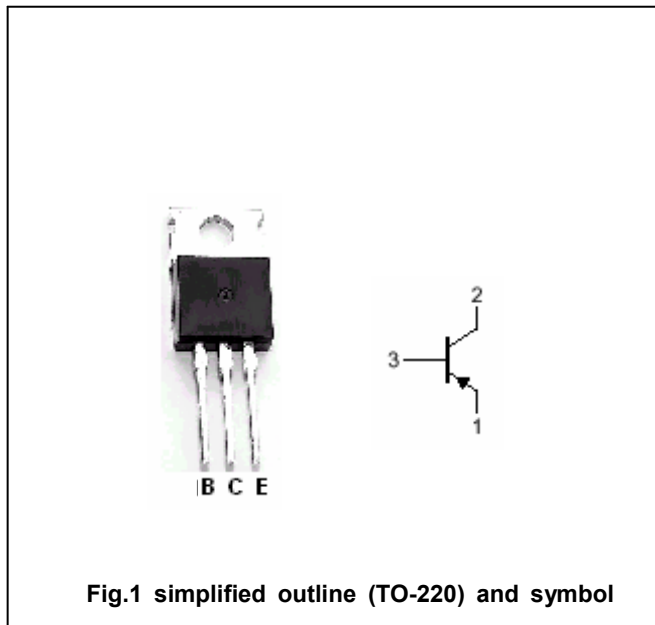


Fig.1 simplified outline (TO-220) and symbol

Absolute maximum ratings(Ta=25°C)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|------------------|---------------------------|----------------------|---------|------|
| V _{CBO} | Collector-base voltage | Open emitter | -200 | V |
| V _{CEO} | Collector-emitter voltage | 2SA1133 | -150 | V |
| | | 2SA1133A | -180 | |
| V _{EBO} | Emitter-base voltage | Open collector | -6 | V |
| I _C | Collector current | | -2.0 | A |
| I _{CM} | Collector current-peak | | -3.0 | A |
| P _T | Total power dissipation | T _C =25°C | 30 | 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 | 2SA1133 | I _C =-5mA, I _B =0 | | | V |
| | | 2SA1133A | | | | |
| V _{(BR)CBO} | Collector-base breakdown voltage | I _C =-0.5mA, I _E =0 | -200 | | | V |
| V _{(BR)EBO} | Emitter-base breakdown voltage | I _E =-0.5mA, I _C =0 | -6 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =-500mA; I _B =-50mA | | | -1.0 | V |
| V _{BE} | Base-emitter on voltage | I _C =-400mA; V _{CE} =-10V | | | -1.0 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =-200V; I _E =0 | | | -50 | μA |
| I _{EBO} | Emitter cut-off current | V _{EB} =-4V; I _C =0 | | | -50 | μA |
| h _{FE-1} | DC current gain | I _C =-150mA; V _{CE} =-10V | 60 | | 240 | |
| h _{FE-2} | DC current gain | I _C =-400mA; V _{CE} =-10V | 50 | | | |

◆ h_{FE-1} Classifications

| Q | P |
|--------|---------|
| 60-140 | 100-240 |

