

Silicon NPN Power Transistors

2SD234

DESCRIPTION

- With TO-220 package
- Complement to type 2SB434

APPLICATIONS

- For low frequency power amplifier and switching applications

PINNING

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

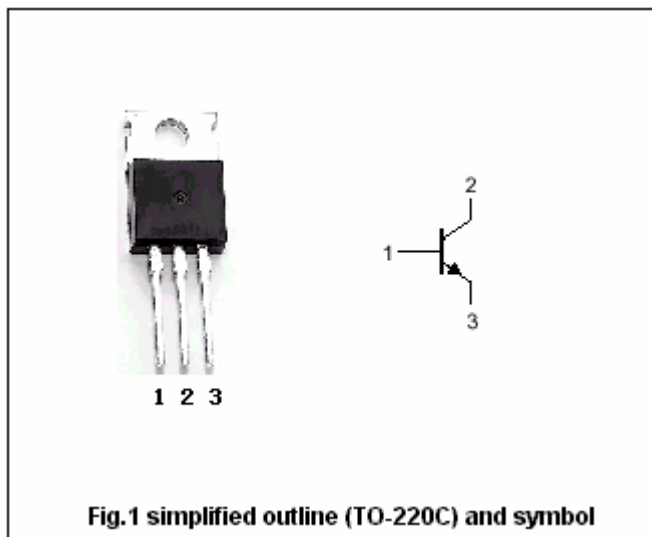


Fig.1 simplified outline (TO-220C) and symbol

Absolute maximum ratings(Ta=25°C)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|------------------|-----------------------------|----------------------|---------|------|
| V _{CBO} | Collector-base voltage | Open emitter | 60 | V |
| V _{CEO} | Collector-emitter voltage | Open base | 50 | V |
| V _{EBO} | Emitter-base voltage | Open collector | 6 | V |
| I _C | Collector current | | 3 | A |
| P _C | Collector power dissipation | | 1.5 | W |
| | | T _C =25°C | 25 | |
| T _j | Junction temperature | | 150 | °C |
| T _{stg} | Storage temperature | | -55~150 | °C |

Silicon NPN Power Transistors

2SD234

CHARACTERISTICS

T_j=25°C unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|----------------------|--------------------------------------|---|-----|------|-----|------|
| V _{(BR)CEO} | Collector-emitter breakdown voltage | I _C =5mA, I _B =0 | 50 | | | V |
| V _{(BR)CBO} | Collector-base breakdown voltage | I _C =1mA, I _E =0 | 60 | | | V |
| V _{(BR)EBO} | Emitter-base breakdown voltage | I _E =1mA, I _C =0 | 6 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =3A; I _B =0.3A | | | 1.2 | V |
| V _{BEsat} | Base-emitter saturation voltage | I _C =3A; I _B =0.3A | | | 1.5 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =40V; I _E =0 | | | 10 | μA |
| I _{EBO} | Emitter cut-off current | V _{EB} =4V; I _C =0 | | | 10 | μA |
| h _{FE} | DC current gain | I _C =0.5A; V _{CE} =1V | 40 | | 240 | |
| C _{OB} | Output capacitance | I _E =0; V _{CB} =10V, f=1MHz | | 90 | | pF |
| f _T | Transition frequency | I _C =0.5A; V _{CE} =10V | | 3 | | MHz |

◆ h_{FE} Classifications

| R | O | Y |
|-------|--------|---------|
| 40-80 | 70-140 | 120-240 |

