

Silicon NPN Power Transistors

2SC2832 2SC2832A

DESCRIPTION

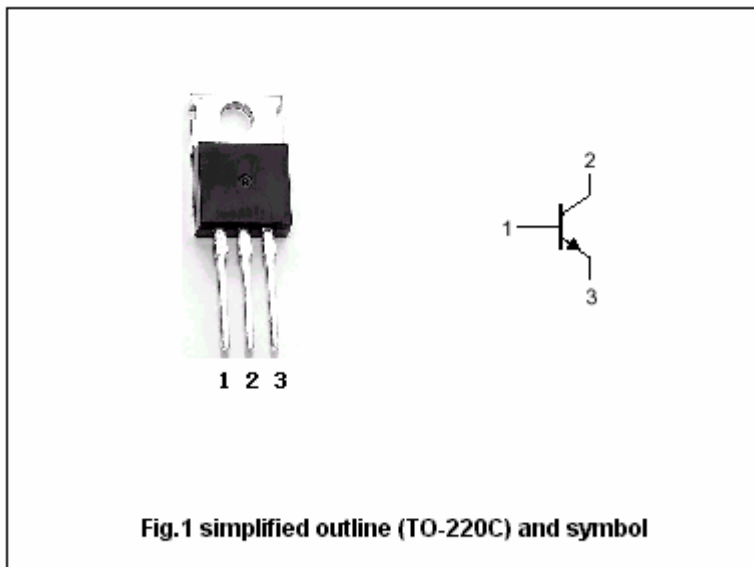
- With TO-220 package
- Low collector saturation voltage
- High V_{CBO}
- High speed switching

APPLICATIONS

- For high speed switching 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 | 2SC2832 | 800 | V |
| | | 2SC2832A | 900 | |
| V_{CEO} | Collector-emitter voltage | Open base | 500 | V |
| V_{EBO} | Emitter-base voltage | Open collector | 8 | V |
| I_C | Collector current | | 5 | A |
| I_{CM} | Collector current-peak | | 10 | A |
| I_B | Base current | | 3 | A |
| P_C | Collector power dissipation | $T_C=25^\circ C$ | 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 _{CEO(SUS)} | Collector-emitter sustaining voltage | | I _C =0.2A; L=25mH | 500 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | | I _C =3A; I _B =0.6A | | | 1.0 | V |
| V _{BEsat} | Base-emitter saturation voltage | | I _C =3A; I _B =0.6A | | | 1.5 | V |
| I _{CBO} | Collector cut-off current | 2SC2832 | V _{CB} =800V; I _E =0 | | | 100 | μA |
| | | 2SC2832A | V _{CB} =900V; I _E =0 | | | | |
| I _{EBO} | Emitter cut-off current | | V _{EB} =5V; I _C =0 | | | 100 | μA |
| h _{FE-1} | DC current gain | | I _C =0.1A; V _{CE} =5V | 15 | | | |
| h _{FE-2} | DC current gain | | I _C =3A; V _{CE} =5V | 8 | | | |
| f _T | Transition frequency | | I _C =0.5A; V _{CE} =10V | | 3 | | MHz |

Switching times

| | | | | | | | | | |
|------------------|--------------|----------|---|--|-----|-----|----|-----|----|
| t _{on} | Turn-on time | 2SC2832 | I _C =3A; I _{B1} =-I _{B2} =-0.6A V _{CC} =200V | | | 1.0 | μs | | |
| | | 2SC2832A | | | | 1.2 | | | |
| t _{stg} | Storage time | | | | | | | 3.0 | μs |
| t _f | Fall time | 2SC2832 | | | | | | 1.0 | μs |
| | | 2SC2832A | | | 1.2 | | | | |

