

Silicon NPN Power Transistors

2SC1516

DESCRIPTION

With TO-220 package

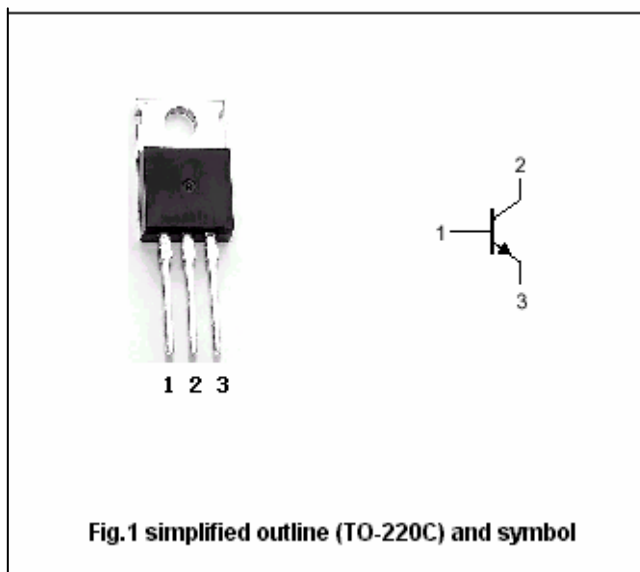
·Low collector saturation voltage

APPLICATIONS

·For medium power amplifier applicatons

PINNING

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

**Absolute maximum ratings(Ta=25□)**

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|-----------|-----------------------------|----------------|---------|------|
| V_{CBO} | Collector-base voltage | Open emitter | 35 | V |
| V_{CEO} | Collector-emitter voltage | Open base | 35 | V |
| V_{EBO} | Emitter-base voltage | Open collector | 5 | V |
| I_C | Collector current | | 1.5 | A |
| I_{CM} | Collector current-peak | | 3.0 | A |
| P_C | Collector power dissipation | $T_C=25□$ | 10 | W |
| T_j | Junction temperature | | 150 | □ |
| T_{stg} | Storage temperature | | -55~150 | □ |

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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 | I _C =25mA, I _B =0 | 35 | | | V |
| V _{(BR)EBO} | Emitter-base breakdown voltage | I _E =1mA, I _C =0 | 5 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =1A; I _B =0.1A | | | 2.0 | V |
| V _{BEsat} | Base-emitter saturation voltage | I _C =1A; I _B =0.1A | | | 1.5 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =35V; I _E =0 | | | 20 | μA |
| I _{EBO} | Emitter cut-off current | V _{EB} =5V; I _C =0 | | | 20 | μA |
| h _{FE} | DC current gain | I _C =0.5A; V _{CE} =2V | 60 | | 200 | |
| f _T | Transition frequency | I _C =0.2A; V _{CE} =10V | | 110 | | MHz |

◆ h_{FE} Classifications

| B | C |
|--------|---------|
| 60-120 | 100-200 |

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PACKAGE OUTLINE



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