

Silicon NPN Power Transistors

2N6486 2N6487 2N6488

DESCRIPTION

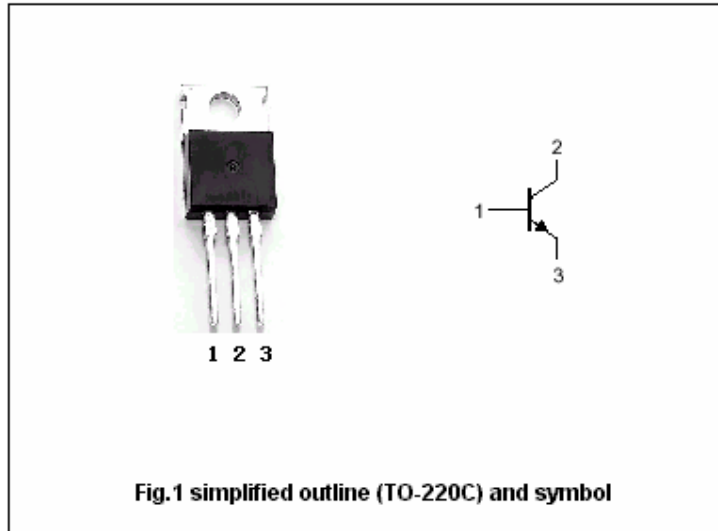
- With TO-220 package
- Excellent safe operating area
- Complement to type 2N6489 2N6490 2N6491 respectively

APPLICATIONS

- Power amplifier and medium speed switching applications

PINNING

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

Absolute maximum ratings($T_a=25^\circ\text{C}$)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|-----------|---------------------------|----------------|---------|------|
| V_{CBO} | Collector-base voltage | 2N6486 | 50 | V |
| | | 2N6487 | 70 | |
| | | 2N6488 | 90 | |
| V_{CEO} | Collector-emitter voltage | 2N6486 | 40 | V |
| | | 2N6487 | 60 | |
| | | 2N6488 | 80 | |
| V_{EBO} | Emitter-base voltage | Open collector | 5 | V |
| I_C | Collector current | | 15 | A |
| I_B | Base current | | 5 | A |
| P_T | Total power dissipation | $T_C=25$ | 75 | W |
| T_j | Junction temperature | | 150 | |
| T_{stg} | Storage temperature | | -65~150 | |

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---------------|--|------|------|
| $R_{th\ j-c}$ | Thermal resistance from junction to case | 1.67 | /W |

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CHARACTERISTICS

T_j=25 unless otherwise specified

| SYMBOL | PARAMETER | | CONDITIONS | MIN | TYP. | MAX | UNIT |
|-----------------------|---|--------|--|-----|------|------------|------|
| V _{CE0(SUS)} | Collector-emitter sustaining voltage | 2N6486 | I _C =0.2A ; I _B =0 | 40 | | | V |
| | | 2N6487 | | 60 | | | |
| | | 2N6488 | | 80 | | | |
| V _{CEsat-1} | Collector-emitter saturation voltage | | I _C =5A; I _B =0.5A | | | 1.3 | V |
| V _{CEsat-2} | Collector-emitter saturation voltage | | I _C =15A; I _B =5A | | | 3.5 | V |
| V _{BE-1} | Base-emitter on voltage | | I _C =5A ; V _{CE} =4V | | | 1.3 | V |
| V _{BE-2} | Base-emitter on voltage | | I _C =15A ; V _{CE} =4V | | | 3.5 | V |
| I _{CEX} | Collector cut-off current V _{BE} =-1.5V | 2N6486 | V _{CE} =45V; V _{CE} =40V; T _C =150 | | | 0.5 5.0 | mA |
| | | 2N6487 | V _{CE} =65V; V _{CE} =60V; T _C =150 | | | 0.5 5.0 | |
| | | 2N6488 | V _{CE} =85V; V _{CE} =80V; T _C =150 | | | 0.5 5.0 | |
| I _{CEO} | Collector cut-off current | 2N6486 | V _{CE} =20V; I _B =0 | | | 1.0 | mA |
| | | 2N6487 | V _{CE} =30V; I _B =0 | | | | |
| | | 2N6488 | V _{CE} =40V; I _B =0 | | | | |
| I _{EBO} | Emitter cut-off current | | V _{EB} =5V; I _C =0 | | | 1.0 | mA |
| h _{FE-1} | DC current gain | | I _C =5A ; V _{CE} =4V | 20 | | 150 | |
| h _{FE-2} | DC current gain | | I _C =15A ; V _{CE} =4V | 5 | | | |

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PACKAGE OUTLINE

