

## Silicon PNP Power Transistors

## 2N6132 2N6133 2N6134

## DESCRIPTION

- With TO-220 package
- High power dissipation
- Complement to NPN type :  
2N6129 2N6130 2N6131

## APPLICATIONS

- Power amplifier and medium speed switching applications

## PINNING

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

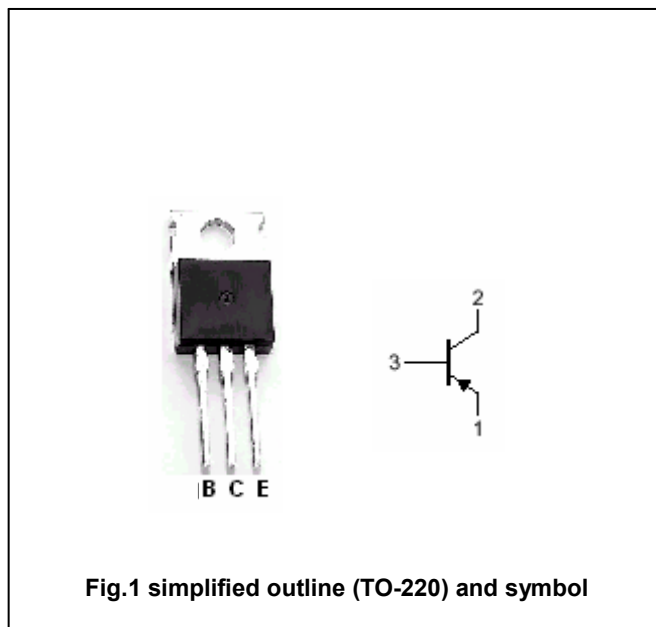


Fig.1 simplified outline (TO-220) and symbol

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

| SYMBOL    | PARAMETER                 |        | CONDITIONS             | VALUE   | UNIT             |
|-----------|---------------------------|--------|------------------------|---------|------------------|
| $V_{CBO}$ | Collector-base voltage    | 2N6132 | Open emitter           | -40     | V                |
|           |                           | 2N6133 |                        | -60     |                  |
|           |                           | 2N6134 |                        | -80     |                  |
| $V_{CEO}$ | Collector-emitter voltage | 2N6132 | Open base              | -40     | V                |
|           |                           | 2N6133 |                        | -60     |                  |
|           |                           | 2N6134 |                        | -80     |                  |
| $V_{EBO}$ | Emitter-base voltage      |        | Open collector         | -5      | V                |
| $I_C$     | Collector current         |        |                        | -7      | A                |
| $I_B$     | Base current              |        |                        | -3      | A                |
| $P_T$     | Total power dissipation   |        | $T_C=25^\circ\text{C}$ | 50      | W                |
| $T_j$     | Junction temperature      |        |                        | 150     | $^\circ\text{C}$ |
| $T_{stg}$ | Storage temperature       |        |                        | -65~150 | $^\circ\text{C}$ |

## THERMAL CHARACTERISTICS

| SYMBOL        | PARAMETER                                | MAX | UNIT                      |
|---------------|------------------------------------------|-----|---------------------------|
| $R_{th\ j-c}$ | Thermal resistance from junction to case | 2.5 | $^\circ\text{C}/\text{W}$ |

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## CHARACTERISTICS

T<sub>j</sub>=25°C unless otherwise specified

| SYMBOL                | PARAMETER                            |        | CONDITIONS                                                           | MIN | TYP. | MAX          | UNIT |
|-----------------------|--------------------------------------|--------|----------------------------------------------------------------------|-----|------|--------------|------|
| V <sub>CEO(SUS)</sub> | Collector-emitter sustaining voltage | 2N6132 | I <sub>C</sub> =-0.1A ; I <sub>B</sub> =0                            | -40 |      |              | V    |
|                       |                                      | 2N6133 |                                                                      | -60 |      |              |      |
|                       |                                      | 2N6134 |                                                                      | -80 |      |              |      |
| V <sub>CEsat</sub>    | Collector-emitter saturation voltage | 2N6132 | I <sub>C</sub> =-7A; I <sub>B</sub> =-1.2A                           |     |      | -1.4         | V    |
|                       |                                      | 2N6133 |                                                                      |     |      | -1.8         |      |
|                       |                                      | 2N6134 |                                                                      |     |      |              |      |
| V <sub>BE</sub>       | Base-emitter on voltage              |        | I <sub>C</sub> =-2.5A ; V <sub>CE</sub> =-4V                         |     |      | -1.4         | V    |
| I <sub>CEV</sub>      | Collector cut-off current            | 2N6132 | V <sub>CE</sub> =-40V; V <sub>BE</sub> =1.5V<br>T <sub>C</sub> =150□ |     |      | -0.5<br>-3.0 | mA   |
|                       |                                      | 2N6133 | V <sub>CE</sub> =-60V; V <sub>BE</sub> =1.5V<br>T <sub>C</sub> =150□ |     |      | -0.5<br>-3.0 |      |
|                       |                                      | 2N6134 | V <sub>CE</sub> =-80V; V <sub>BE</sub> =1.5V<br>T <sub>C</sub> =150□ |     |      | -0.5<br>-3.0 | mA   |
| I <sub>EBO</sub>      | Emitter cut-off current              |        | V <sub>EB</sub> =-5V; I <sub>C</sub> =0                              |     |      | -1.0         | mA   |
| h <sub>FE</sub>       | DC current gain                      |        | I <sub>C</sub> =-2.5A ; V <sub>CE</sub> =-4V                         | 20  |      | 100          |      |
| f <sub>T</sub>        | Transition frequency                 |        | I <sub>C</sub> =-0.2A ; V <sub>CE</sub> =-4V                         | 2.5 |      |              | MHz  |

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## PACKAGE OUTLINE



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