

## DESCRIPTION

- With TO-3PN packaging
- Reliable performance at higher powers
- Accurate reproduction of Input signal
- Greater dynamic range
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

- Switching regulators
- High frequency inverters
- General purpose power amplifiers

## ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ\text{C}$ )

| SYMBOL    | PARAMETER   | VALUE   | UNIT             |
|-----------|---|---------|------------------|
| $V_{CBO}$ | Collector-Base Voltage                              | 250     | V                |
| $V_{CEO}$ | Collector-Emitter Voltage                           | 250     | V                |
| $V_{CEX}$ | Collector-Emitter Voltage<br>$V_{EB}= 5\text{V}$    | 250     | V                |
| $V_{EBO}$ | Emitter-Base Voltage                                | 5       | V                |
| $I_c$     | Collector Current-Continuous                        | 15      | A                |
| $I_{CM}$  | Collector Current-Peak                              | 30      | A                |
| $I_B$     | Base Current-Continuous                             | 1.6     | A                |
| $P_T$     | Total Power Dissipation<br>@ $T_c=25^\circ\text{C}$ | 200     | W                |
| $T_J$     | Junction Temperature                                | 150     | $^\circ\text{C}$ |
| $T_{stg}$ | Storage Temperature Range                           | -65~150 | $^\circ\text{C}$ |

## THERMAL CHARACTERISTICS

| SYMBOL       | PARAMETER                           | MAX  | UNIT                      |
|--------------|-------------------------------------|------|---------------------------|
| $R_{th j-c}$ | Thermal Resistance,Junction to Case | 0.63 | $^\circ\text{C}/\text{W}$ |

## Ordering Information

| Product      | Package | Packaging |
|--------------|---------|-----------|
| NJW3281GT4TL | TO-3PN  | Tube      |

---

---

# NJW3281G

---

## ELECTRICAL CHARACTERISTICS

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

| SYMBOL                | PARAMETER                            | CONDITIONS                                  | MIN | TYP. | MAX | UNIT |
|-----------------------|--------------------------------------|---|-----|------|-----|------|
| V <sub>CEO(sus)</sub> | Collector-Emitter Sustaining Voltage | I <sub>C</sub> = 100mA; I <sub>B</sub> = 0  | 250 |      |     | V    |
| V <sub>CE(sat)</sub>  | Collector-Emitter Saturation Voltage | I <sub>C</sub> = 8A; I <sub>B</sub> = 0.8A  |     |      | 0.6 | V    |
| V <sub>BE(on)</sub>   | Base-Emitter On Voltage              | I <sub>C</sub> = 8A; V <sub>CE</sub> = 5V   |     |      | 1.5 | V    |
| I <sub>CBO</sub>      | Collector Cutoff Current             | V <sub>CB</sub> = 250V                      |     |      | 50  | mA   |
| I <sub>CEO</sub>      | Collector Cutoff Current             | V <sub>CE</sub> = 250V                      |     |      | 50  | mA   |
| I <sub>EBO</sub>      | Emitter Cutoff Current               | V <sub>EB</sub> = 5V                        |     |      | 5   | mA   |
| h <sub>FE-1</sub>     | DC Current Gain                      | I <sub>C</sub> = 0.1A; V <sub>CE</sub> = 5V | 75  |      | 150 |      |
| h <sub>FE-2</sub>     | DC Current Gain                      | I <sub>C</sub> = 1A; V <sub>CE</sub> = 5V   | 75  |      | 150 |      |
| h <sub>FE-3</sub>     | DC Current Gain                      | I <sub>C</sub> = 3A; V <sub>CE</sub> = 5V   | 75  |      | 150 |      |
| h <sub>FE-4</sub>     | DC Current Gain                      | I <sub>C</sub> = 5A; V <sub>CE</sub> = 5V   | 60  |      |     |      |
| h <sub>FE-5</sub>     | DC Current Gain                      | I <sub>C</sub> = 8A; V <sub>CE</sub> = 5V   | 45  |      |     |      |