

**2N6202**

## SILICON BIPOLAR NPN POWER TRANSISTOR 3 W, in the 100 – 400 MHz Range

The silicon bipolar n-p-n transistor is designed for communications transceiver equipment, auto-oscillator and frequency multiplier circuits, common emitter.

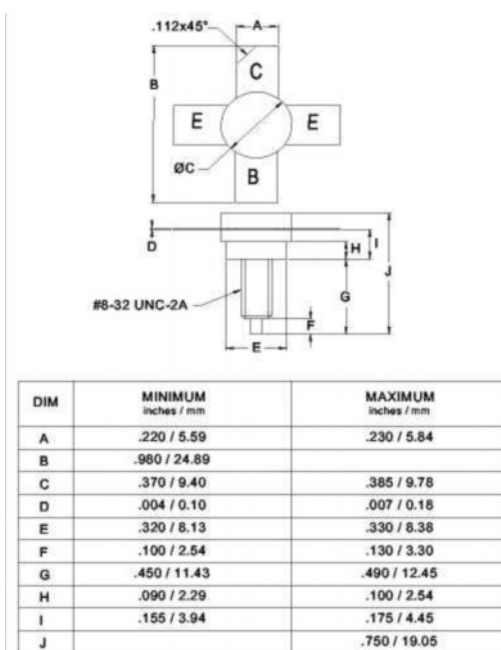
Features (At 400 MHz):

- Output Power: 3 W
- Power Gain: 8 dB Min
- Efficiency: 50% Min

### Absolute Maximum Ratings

| Parameters                                | Sym             | Value      | Unit     |
|---|-----------------|------------|----------|
| Collector–Emitter Voltage                 | $V_{CEO}$       | 33         | $V_{DC}$ |
| Collector–Emitter Voltage                 | $V_{CER}$       | 60         | $V_{DC}$ |
| Collector–Base Voltage                    | $V_{CBO}$       | 60         | $V_{DC}$ |
| Emitter–Base Voltage                      | $V_{EBO}$       | 4          | $V_{DC}$ |
| Collector Current                         | $I_C$           | 0.5        | $A_{DC}$ |
| Operation Junction Temperature            | $T_j$           | -65 ÷ +200 | °C       |
| Storage Temperature Range                 | $T_{STG}$       | -65 ÷ +150 | °C       |
| Thermal Resistance, Junction to Case      | $R_{\theta JC}$ | 17.5       | °C/W     |
| Total Power Dissipation, $T_C=25^\circ C$ | $P_D$           | 7.5        | W        |

### PACKAGE STYLE .380 4L STUD



### Parameters

| Parameter  | Symbol        | Min. | Typ. | Max. | Unit     |
|--|---------------|------|------|------|----------|
| Collector–Emitter Breakdown Voltage ( $I_C = 200 \text{ mA}$ , $I_B = 0 \text{ A}$ )           | $V_{(BR)CEO}$ | 33   | —    | —    | $V_{DC}$ |
| Collector–Base Breakdown Voltage ( $I_C = 0.5 \text{ mA}$ , $V_{BE} = 0 \text{ V}$ )           | $V_{(BR)CBO}$ | 60   | —    | —    | $V_{DC}$ |
| Emitter–Base Breakdown Voltage ( $I_E = 2.5 \text{ mA}$ , $I_C = 0 \text{ A}$ )                | $V_{(BR)EBO}$ | 4    | —    | —    | $V_{DC}$ |
| DC Current Gain ( $V_{CE} = 5 \text{ V}$ , $I_C = 0.25 \text{ A}$ )                            | $h_{FE}$      | 5    | —    | 100  |          |
| Power Gain ( $V_{CC} = 28 \text{ V}$ , $P_{OUT} = 3 \text{ W}$ , $f = 400 \text{ MHz}$ )       | $G_p$         | 8    | —    | —    | dB       |
| Drain Efficiency ( $V_{CC} = 28 \text{ V}$ , $P_{OUT} = 3 \text{ W}$ , $f = 400 \text{ MHz}$ ) | $\eta_C$      | 50   | 60   | 80   | %        |

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Specification is subject to change without notice