

**Electrical Characteristics (Cont'd):** ( $T_A = +25^{\circ}\text{C}$  unless otherwise specified)

| Parameter                        | Symbol    | Test Conditions                                                                                     | Min | Typ | Max | Unit |
|----------------------------------|-----------|-----------------------------------------------------------------------------------------------------|-----|-----|-----|------|
| <b>Dynamic Characteristics</b>   |           |                                                                                                     |     |     |     |      |
| Output Capacitance               | $C_{ob}$  | $V_{CB} = 20\text{V}, I_E = 0, f = 1\text{MHz}$                                                     | -   | -   | 30  | pF   |
| Input Capacitance                | $C_{ib}$  | $V_{BE} = 500\text{mV}, f = 1\text{MHz}$                                                            | -   | -   | 110 | pF   |
| Small-Signal Current Gain        | $h_{fe}$  | $I_C = 500\text{mA}, V_{CE} = 10\text{V}, f = 100\text{MHz}$                                        | 1   | -   | 5   |      |
| Noise Figure                     | NF        | $I_C = 100\text{mA}, V_{CE} = 10\text{V}, R_S = 1\text{k}\Omega, f = 1\text{kHz}, B_W = 1\text{Hz}$ | -   | -   | 3   | dB   |
| <b>Switching Characteristics</b> |           |                                                                                                     |     |     |     |      |
| Turn-On Time                     | $t_{on}$  | $V_{CC} = 30\text{V}, I_C = 500\text{mA}, I_{B1} = I_{B2} = 50\text{mA}$                            | -   | -   | 100 | ns   |
| Turn-Off Time                    | $t_{off}$ |                                                                                                     | -   | -   | 400 | ns   |

