



### ELECTRICAL CHARACTERISTICS

| Characteristics  | Symbols              | TEST CONDITIONS       |           |                                 |                              |                            |                      |                      |                      | LIMITS      |          |          | Units    |
|--|----------------------|-----------------------|-----------|---------------------------------|------------------------------|----------------------------|----------------------|----------------------|----------------------|-------------|----------|----------|----------|
|  |                      | Free-Air Temperature  | Frequency | DC Collector-to-Emitter Voltage | DC Collector-to-Base Voltage | DC Emitter-to-Base Voltage | DC Emitter Current   | DC Collector Current | DC Base Current      | Type 2N3261 |          |          |          |
|  |                      | T <sub>FA</sub><br>°C | f<br>Mc   | V <sub>CE</sub><br>volts        | V <sub>CB</sub><br>volts     | V <sub>EB</sub><br>volts   | I <sub>E</sub><br>ma | I <sub>C</sub><br>ma | I <sub>B</sub><br>ma | Min.        | Typ.     | Max.     |          |
| Collector-Cutoff Current                                 | I <sub>CEV</sub>     | 25<br>150             |           | 15<br>15                        |                              | 0<br>0                     |                      |                      |                      | -<br>-      | 5<br>6.5 | 25<br>25 | na<br>μa |
| Base-Cutoff Current                                      | I <sub>BEV</sub>     | 25                    |           | 15                              |                              | 0                          |                      |                      |                      | -           | -5       | -25      | na       |
| Collector-to-Base Break-down Voltage                     | BV <sub>CB0</sub>    | 25                    |           |                                 |                              |                            | 0                    | 0.01                 |                      | 40          | -        | -        | volts    |
| Collector-to-Emitter Break-down Voltage                  | BV <sub>CEO</sub>    | 25                    |           |                                 |                              |                            |                      | 10                   | 0                    | 15          | -        | -        | volts    |
| Emitter-to-Base Break-down Voltage                       | BV <sub>EB0</sub>    | 25                    |           |                                 |                              |                            | 0.01                 | 0                    |                      | 6           | -        | -        | volts    |
| Collector-to-Emitter Saturation Voltage                  | V <sub>CE(sat)</sub> | 25                    |           |                                 |                              |                            |                      | 100                  | 10                   | -           | 0.28     | 0.35     | volts    |
| Base-to-Emitter Saturation Voltage                       | V <sub>BE(sat)</sub> | 25                    |           |                                 |                              |                            |                      | 100                  | 10                   | 0.8         | 0.93     | 1.1      | volts    |
| Static Forward Current-Transfer Ratio                    | h <sub>FE</sub>      | 25                    |           | 1                               |                              |                            |                      | 10                   |                      | 40          | 60       | 150      |          |
|  |                      | 25                    |           | 1                               |                              |                            |                      | 100                  |                      | 30*         | 50*      | -        |          |
|  |                      | 25                    |           | 1                               |                              |                            |                      | 200                  |                      | 20*         | 35*      | -        |          |
|  |                      | -55                   |           | 1                               |                              |                            |                      | 10                   |                      | 20          | 35       | -        |          |
| Magnitude of Small-Signal Forward Current-Transfer Ratio | h <sub>fe</sub>      | 25                    | 100       | 1                               |                              |                            |                      | 100                  |                      | 3           | 4.4      | -        |          |
|  |                      | 25                    | 100       | 10                              |                              |                            |                      | 10                   |                      | 6           | 8.3      | -        |          |