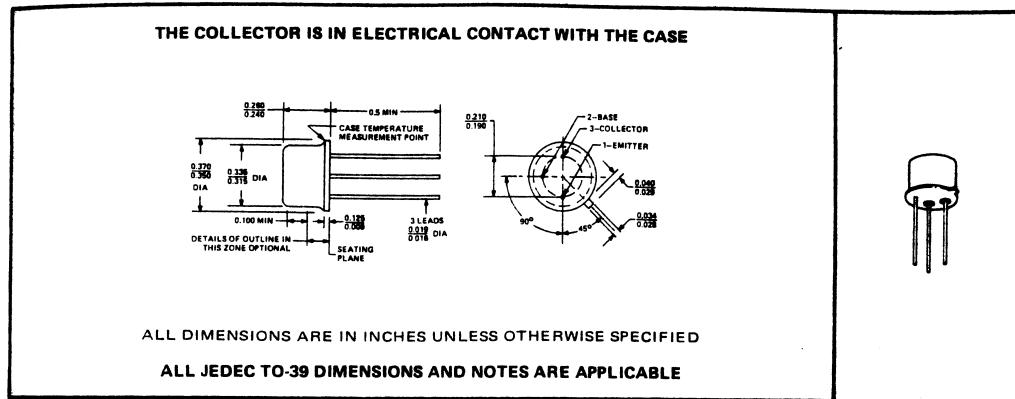


New Jersey Semi-Conductor Products, Inc.

**20 STERN AVE.
SPRINGFIELD, NEW JERSEY 07081
U.S.A.**

TELEPHONE: (973) 376-2922
(212) 227-6005
FAX: (973) 376-8960

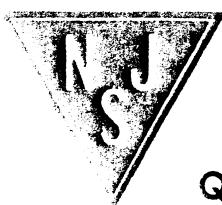
**TYPES 2N6461 THRU 2N6464
N-P-N SILICON TRANSISTORS**



*absolute maximum ratings at 25°C free-air temperature (unless otherwise noted)

| | 2N6461 | 2N6463 |
|--|----------------|---------------|
| | 2N6462 | 2N6464 |
| Collector-Base Voltage | 300 V | 250 V |
| Collector-Emitter Voltage (See Note 1) | 300 V | 250 V |
| Emitter-Base Voltage | 7 V | 6 V |
| Continuous Collector Current | ← 100 mA → | |
| Continuous Device Dissipation at (or below) 25°C Free-Air Temperature (See Note 2) | ← 1 W → | |
| Continuous Device Dissipation at (or below) 25°C Case Temperature (See Note 3) | ← 10 W → | |
| Storage Temperature Range | -65°C to 200°C | |
| Lead Temperature 1/16 Inch from Case for 10 Seconds | ← 300°C → | |

NOTES: 1. This value applies between 0 and 10 mA collector current when the base-emitter diode is open-circuited.
2. Derate linearly to 175°C free-air temperature at the rate of 6.67 mW/°C.
3. Derate linearly to 175°C case temperature at the rate of 66.7 mW/°C.



Quality Semi-Conductors

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TYPES 2N6461 THRU 2N6464
N-P-N SILICON TRANSISTORS

*electrical characteristics at 25°C free-air temperature (unless otherwise noted)

| PARAMETER | TEST CONDITIONS | 2N6461 | | 2N6462 | | 2N6463 | | 2N6464 | | UNIT |
|---|--|--------|-----|--------|-----|--------|-----|--------|-----|------|
| | | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | |
| V _{(BR)CBO} Collector-Base Breakdown Voltage | I _C = 100 μA, I _E = 0 | 300 | | 300 | | 250 | | 250 | | V |
| V _{(BR)CEO} Collector-Emitter Breakdown Voltage | I _C = 10 mA, I _B = 0, See Note 4 | 300 | | 300 | | 250 | | 250 | | V |
| V _{(BR)EBO} Emitter-Base Breakdown Voltage | I _E = 100 μA, I _C = 0 | 7 | | 7 | | 6 | | 6 | | V |
| I _{CBO} Collector Cutoff Current | V _{CB} = 200 V, I _E = 0 | | 50 | | 50 | | | | | nA |
| | V _{CB} = 150 V, I _E = 0 | | | | | 50 | | 50 | | nA |
| | V _{CB} = 200 V, I _E = 0, T _A = 125°C | | 20 | | 20 | | | | | μA |
| | V _{CB} = 150 V, I _E = 0, T _A = 125°C | | | | | 20 | | 20 | | μA |
| I _{EBO} Emitter Cutoff Current | V _{EB} = 5 V, I _C = 0 | | 10 | | 10 | | 10 | | 10 | nA |
| h _{FE} Static Forward Current Transfer Ratio | V _{CE} = 10 V, I _C = 4 mA | 20 | | 20 | | 20 | | 20 | | |
| | V _{CE} = 10 V, I _C = 20 mA, See Note 4 | 30 | 120 | 100 | 300 | 30 | 120 | 100 | 300 | |
| | V _{CE} = 10 V, I _C = 40 mA, See Note 4 | | | | | 30 | | 40 | | |
| V _{BE} Base-Emitter Voltage | V _{CE} = 10 V, I _C = 20 mA, See Note 4 | | 1 | | 1 | | 1 | | 1 | V |
| V _{CE(sat)} Collector-Emitter Saturation Voltage | I _B = 2 mA, I _C = 20 mA, See Note 4 | | 1.1 | | 1.1 | | 1 | | 1 | V |
| h _{fel} Small-Signal Common-Emitter Forward Current Transfer Ratio | V _{CE} = 20 V, I _C = 20 mA, f = 20 MHz | 3.5 | 10 | 3.5 | 10 | 3.5 | 10 | 3.5 | 10 | |
| C _{cb} Collector-Base Capacitance | V _{CB} = 20 V, I _E = 0, f = 1 MHz, See Note 5 | | 3 | | 3 | | 3 | | 3 | pF |

NOTES: 4. These parameters must be measured using pulse techniques. t_w = 300 μs, duty cycle ≤ 2%.
5. C_{cb} measurement employs a three-terminal capacitance bridge incorporating a guard circuit. The emitter is connected to the guard terminal of the bridge.