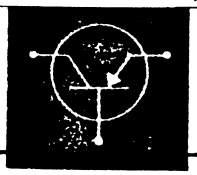
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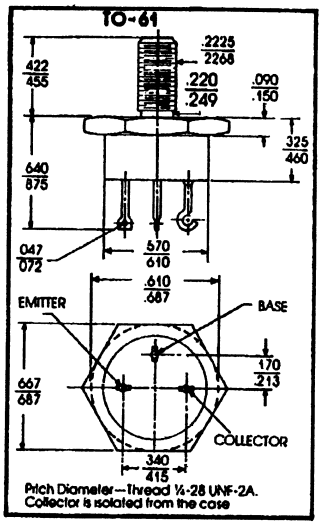


# NPN POWER TRANSISTORS
## 20 & 30 AMP

**2N5329**
**2N5330**

### GEOMETRY 511

- Ic to 30 Amp
- Fast Switching




### MAXIMUM RATINGS

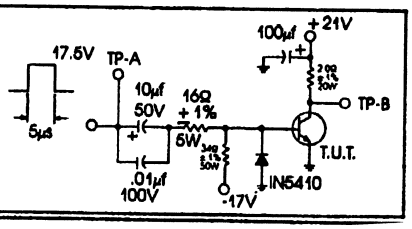
| PARAMETER | SYMBOL | 2N5329 | 2N5330 | UNIT |
|---|---|---|---|---|
| Collector-Emitter Voltage | VCEO | 90 | 90 | V |
| Collector-Base Voltage | VCBO | 150 | 150 | V |
| Emitter-Base Voltage | VEBO | 8 | 8 | V |
| Collector Current-Continuous | | 20 | 30 | A |
| -Peak* | | 30 | 40 | A |
| Base Current-Continuous | | 5 | 5 | A |
| -Peak* | | 8 | 8 | A |
| Emitter Current-Continuous | | 20 | 30 | A |
| -Peak* | | 30 | 40 | A |
| Power Dissipation @TC≤100°C | | 65 | 80 | W |
| Linear Derating Factor | | 650 | 800 | mW/°C |
| Peak Power Dissipation @TC≤25°C 300 μsec PW @ 60 PPS | | 1 | 1 | KW |
| Linear Derating Factor | | 5.7 | 5.7 | W/°C |
| Storage and Operating Junction Temperature Range | | −65°C to +200°C | | |
| Lead Temp. (1/16" ± 1/32" from case) | | 230°C for 10 seconds | | |

### ELECTRICAL CHARACTERISTICS AT 25°C CASE TEMPERATURE (unless otherwise specified)

| PARAMETER | SYMBOL | TEST CONDITIONS | 2N5329 | | 2N5330 | | UNIT |
|---|---|---|---|---|---|---|---|
| | | | MIN. | MAX. | MIN. | MAX. | |
| Collector Cutoff Current | ICEV | VCE = 150V, VBE = −.5V, TC = 150°C | | 50 | | 50 | mA |
| | | VCE = 150V, VBE = −.5V-reverse bias | | 5 | | 10 | mA |
| Emitter Cutoff Current | IEBO | VEB = 8.0V | | 5 | | 5 | mA |
| Collector-Emitter Sustain Voltage | VCEO(sus) | IB = 0, IC = 100mA | 90 | | 90 | | V |
| *DC Forward Current Transfer Ratio | hFE | VCE = 2V, IC = 10A | 40 | 120 | 40 | 120 | |
| | | VCE = 3V, IC = 20A | 10 | | | | |
| | | VCE = 3V, IC = 30A | | | 10 | 50 | |
| *Collector-Emitter Saturation Voltage | VCE(sat) | IC = 10A, IB = .5A | | | | .6 | V |
| | | IC = 20A, IB = 2A | | 1.8 | | | V |
| | | IC = 30A, IB = 3A | | | | 1.8 | V |
| *Base Emitter Voltage | VBE(sat) | IC = 10A, IB = .3A | | | | 1.3 | V |
| | | IC = 20A, IB = 2A | | 1.7 | | | V |
| | | IC = 30A, IB = 3A | | | | 1.8 | V |
| Turn-On Time | tON | See Diagram Below. | | .350 | | .350 | μsec |
| Turn-Off Time | tOFF | | | 1.1 | | 1.250 | μsec |
| High Frequency Beta | hFE | VCE = 10V, IC = 3A, f = 10mHz | 8 | | 8 | | |

SWITCHING CIRCUIT-SATURATED

ZIN = 50Ω
IC = 10ADC
$I_{B_1} = I_{B_2} = 0.5$ AMPS




*Pulsed.
Pulse width = 300 μsec. 2% duty cycle.

NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.