



ELECTRONICS, INC.
 44 FARRAND STREET
 BLOOMFIELD, NJ 07003
 (973) 748-5089
<http://www.nteinc.com>

NTE237 Silicon NPN Transistor RF Power Output (P_O = 3.5W, 27MHz)

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

| | |
|---|----------------|
| Collector-Base Voltage, V _{CBO} | 60V |
| Collector-Emitter Voltage (R _{BE} = 10Ω), V _{CER} | 60V |
| Emitter-Base Voltage, V _{EBO} | 4V |
| Collector Current, I _C | |
| Continuous | 2A |
| Peak | 4A |
| Emitter Current, I _E | |
| Continuous | -2A |
| Peak | -4A |
| Power Dissipation (T _C = +25°C), P _C | 10W |
| Operating Junction Temperature, T _J | +175°C |
| Storage Temperature Range, T _{stg} | -65° to +175°C |

Electrical Characteristics: (T_A = +25°C unless otherwise specified)

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|--------------------------------------|----------------------|---|-----|-----|-----|------|
| Collector Cutoff Current | I _{CBO} | V _{CB} = 30V, I _E = 0 | - | - | 10 | μA |
| DC Current Gain | h _{FE} | V _{CE} = 5V, I _C = 500mA | 10 | 30 | 140 | |
| Collector-Emitter Saturation Voltage | V _{CE(sat)} | I _C = 500mA, I _B = 100mA | - | - | 1.0 | V |
| Base-Emitter Voltage | V _{BE} | V _{CE} = 5V, I _C = 500mA | - | - | 1.2 | V |
| Current Gain Bandwidth Product | f _T | V _{CE} = 10V, I _E = -200mA | 150 | 300 | - | MHz |
| Output Capacitance | C _{ob} | V _{CB} = 10V, I _E = 0, f = 1MHz | - | 25 | 50 | pF |
| Output Power | P _O | V _{CC} = 12V, f = 50MHz, P _{in} = 0.4W | 4 | 5 | - | W |

