

NTE31 (NPN) & NTE32 (PNP) Silicon Complementary Transistors TV Sound Output, TV Vertical Output, AF Driver Output

Features:

- High Voltage: $V_{CEO} = 160V$
- High Continuous Collector Current Capability

Applications:

- Vertical Deflection Output & Sound Output Applications for Line Operated TV

Absolute Maximum Ratings: ($T_A = +25^{\circ}C$ unless otherwise specified)

| | |
|--|----------------|
| Collector–Base Voltage, V_{CBO} | 160V |
| Collector–Emitter Voltage, V_{CEO} | 160V |
| Emitter–Base Voltage, V_{EBO} | 6V |
| Collector Current, I_C | 1A |
| Base Current, I_B | 500mA |
| Collector Power Dissipation, P_C | 900mW |
| Junction Temperature, T_J | +150°C |
| Storage Temperature Range, T_{stg} | –55° to +150°C |

Electrical Characteristics: ($T_A = +25^{\circ}C$ unless otherwise specified)

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|--------------------------------------|-----------------|-----------------------------------|------|-----|------|---------|
| Collector–Emitter Breakdown Voltage | $V_{(BR)CEO}$ | $I_C = 10mA, I_B = 0$ | 160 | – | – | V |
| Collector Cutoff Current | I_{CBO} | $V_{CB} = 150V, I_E = 0$ | – | – | 1.0 | μA |
| Emitter Cutoff Current | I_{EBO} | $V_{EB} = 6V, I_C = 0$ | – | – | 1.0 | μA |
| DC Current Gain | h_{FE} | $V_{CE} = 5V, I_C = 200mA$ | 100 | – | 200 | |
| Collector–Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C = 500mA, I_B = 50mA$ | – | – | 1.5 | V |
| Base–Emitter Voltage | V_{BE} | $V_{CE} = 5V, I_C = 5mA$ | 0.45 | – | 0.75 | V |
| Transition Frequency | | | | | | |
| NTE31 | f _T | $V_{CE} = 5V, I_C = 200mA$ | 20 | 100 | – | MHz |
| NTE32 | | | 15 | 50 | – | MHz |
| Collector Output Capacitance | | | | | | |
| NTE31 | C _{ob} | $V_{CB} = 10V, I_E = 0, f = 1MHz$ | – | – | 20 | pF |
| NTE32 | | | – | – | 35 | pF |

