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## NTE373 (NPN) & NTE374 (PNP) Silicon Complementary Transistors Audio Amplifier, Driver

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

|   |                |
|---|----------------|
| Collector–Base Voltage, $V_{CBO}$ .....     | 180V           |
| Collector–Emitter Voltage, $V_{CEO}$ .....  | 160V           |
| Emitter–Base Voltage, $V_{EBO}$ .....       | 5V             |
| Collector Current, $I_C$                    |                |
| Continuous .....                            | 1.5A           |
| Peak .....                                  | 3A             |
| Collector Power Dissipation, $P_D$          |                |
| $T_A = +25^\circ\text{C}$ .....             | 1W             |
| $T_C = +25^\circ\text{C}$ .....             | 20W            |
| Operating Junction Temperature, $T_J$ ..... | +150°C         |
| Storage Temperature Range, $T_{stg}$ .....  | –55° to +150°C |

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

| Parameter                            | Symbol        | Test Conditions                                 | Min | Typ | Max | Unit          |
|--------------------------------------|---------------|---|-----|-----|-----|---------------|
| Collector–Base Breakdown Voltage     | $V_{(BR)CBO}$ | $I_C = 1\text{mA}, I_E = 0$                     | 180 | –   | –   | V             |
| Collector–Emitter Breakdown Voltage  | $V_{(BR)CEO}$ | $I_C = 10\text{mA}, R_{BE} = \infty$            | 160 | –   | –   | V             |
| Emitter–Base Breakdown Voltage       | $V_{(BR)EBO}$ | $I_E = 1\text{mA}, I_C = 0$                     | 5   | –   | –   | V             |
| Collector Cutoff Current             | $I_{CBO}$     | $V_{CB} = 160\text{V}, I_E = 0$                 | –   | –   | 10  | $\mu\text{A}$ |
| DC Current Gain                      | $h_{FE1}$     | $V_{CE} = 5\text{V}, I_C = 150\text{mA}$        | 60  | –   | 200 |               |
|                                      | $h_{FE2}$     | $V_{CE} = 5\text{V}, I_C = 500\text{mA}$        | 30  | –   | –   |               |
| Collector–Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C = 500\text{mA}, I_B = 50\text{mA}$         | –   | –   | 1   | V             |
| Base–Emitter Voltage                 | $V_{BE}$      | $V_{CE} = 5\text{V}, I_C = 150\text{mA}$        | –   | –   | 1.5 | V             |
| Transistion Frequency                | $f_T$         | $V_{CE} = 5\text{V}, I_C = 500\text{mA}$        | –   | 140 | –   | MHz           |
| Collector Output Capacitance         | $C_{ob}$      | $V_{CB} = 10\text{V}, I_E = 0, f = 1\text{MHz}$ | –   | 14  | –   | pF            |

