

## NTE176 Germanium PNP Transistor Audio Power Amplifier

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

|                                                              |                                    |
|--------------------------------------------------------------|------------------------------------|
| Collector–Base Voltage, $V_{CBO}$                            | 20V                                |
| Emitter–Base Voltage, $V_{EBO}$                              | 10V                                |
| Continuous Collector Current, $I_C$                          | 2A                                 |
| Total Power Dissipation ( $T_C = +25^\circ\text{C}$ ), $P_C$ | 6W                                 |
| Operating Junction Temperature, $T_J$                        | $+85^\circ\text{C}$                |
| Storage Temperature Range, $T_{stg}$                         | $-55^\circ$ to $+85^\circ\text{C}$ |

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

| Parameter                            | Symbol        | Test Conditions                          | Min | Typ  | Max | Unit          |
|--------------------------------------|---------------|------------------------------------------|-----|------|-----|---------------|
| Collector Cutoff Current             | $I_{CEO}$     | $V_{CE} = 10\text{V}, I_B = 0$           | –   | 0.9  | 10  | mA            |
|                                      | $I_{CBO}$     | $V_{CB} = 20\text{V}, I_E = 0$           | –   | 25   | 500 | $\mu\text{A}$ |
| Emitter Cutoff Current               | $I_{EBO}$     | $V_{EB} = 6\text{V}, I_C = 0$            | –   | 10   | 500 | $\mu\text{A}$ |
| DC Current Gain                      | $h_{FE}$      | $V_{CB} = 0, I_E = 2\text{A}$            | 40  | 75   | –   | –             |
| Transition Frequency                 | $f_T$         | $V_{CB} = 2\text{V}, I_E = 100\text{mA}$ | 0.3 | 1.2  | –   | MHz           |
| Base–Emitter Voltage                 | $V_{BE}$      | $V_{CB} = 0, I_E = 2\text{A}$            | –   | 0.5  | –   | V             |
| Collector–Emitter saturation Voltage | $V_{CE(sat)}$ | $I_C = 2\text{A}, I_B = 200\text{mA}$    | –   | 0.25 | –   | V             |

