

NTE131 (PNP) & NTE155 (NPN) Germanium Complementary Transistors Audio Power Amplifier

Description:

The NTE131 (PNP) and NTE155 (NPN) are Germanium PNP Alloy Junction transistors in a Japanese TO66 type package designed for use in audio power amplifier applications.

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

| | |
|---|------------------------------------|
| Collector–Base Voltage, V_{CBO} | 32V |
| Collector–Emitter Voltage, V_{CES} | 32V |
| Emitter–Base Voltage, V_{EBO} | 10V |
| Collector Current, I_C | 1A |
| Base Current, I_B | 200mA |
| Power Dissipation, P_C | 6W |
| Operating Junction Temperature, T_J | $+90^\circ\text{C}$ |
| Storage Temperature Range, T_{stg} | -55° to $+90^\circ\text{C}$ |

Note 1. NTE131MP is a matched pair of NTE131 with their DC Current Gain (h_{FE}) matched to within 10% of each other.

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

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|--------------------------------------|----------------|-----------------------------|-----|------|-----|------|
| Collector Cutoff Current | I_{CEV} | $V_{CE} = 32V, V_{EB} = 1V$ | – | – | 1 | mA |
| Emitter Cutoff Current | I_{EBO} | $V_{EB} = 10V, I_C = 0$ | – | – | 1 | mA |
| DC Current Gain | h_{FE1} | $V_{CB} = 0, I_E = 100mA$ | 35 | – | 170 | |
| | h_{FE2} | $V_{CB} = 0, I_E = 1A$ | 36 | – | 185 | |
| Common–Emitter Cutoff Frequency | $f_{\alpha e}$ | $V_{CB} = 2V, I_E = 100mA$ | 10 | 15 | – | kHz |
| Base–Emitter ON Voltage | V_{BE} | $V_{CB} = 0, I_E = 1A$ | – | 0.4 | – | V |
| Collector–Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C = 1A, I_B = 100mA$ | – | 0.08 | – | V |

