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NTE121 Germanium PNP Transistor Audio Frequency Power Amplifier

Description:

The NTE121 is a Germanium PNP Alloy Junction transistor in a TO3 type package designed as an audio frequency power output amplifier.

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

| | |
|--|----------------|
| Collector–Base Voltage, V_{CBO} | 60V |
| Collector–Emitter Voltage ($R_{BE} = 68\Omega$), V_{CER} | 45V |
| Emitter–Base Voltage, V_{EBO} | 10V |
| Collector Current, I_C | 10A |
| Emitter Current, I_E | 10A |
| Base Current, I_B | 3A |
| Power Dissipation ($T_C \leq +55^\circ\text{C}$), P_D | 90W |
| Operating Junction Temperature, T_J | +100°C |
| Storage Temperature Range, T_{stg} | –55° to +100°C |

Note 1. Matched pairs are available upon request (NTE121MP). Matched pairs have their gain specification (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–Emitter Breakdown Voltage | $V_{(BR)CER}$ | $I_{C(peak)} = -0.6A, R_{BE} = 68\Omega$ | 45 | – | – | V |
| Collector Cutoff Current | I_{CBO} | $V_{CB} = 30V, I_E = 0$ | – | – | 0.5 | mA |
| DC Current Gain | h_{FE} | $V_{CE} = 2V, I_C = 1A$ | 50 | 90 | 165 | |
| Base–Emitter Input Voltage | V_{BE} | $V_{CE} = 2V, I_C = 1A$ | – | 0.38 | – | V |
| Collector–Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C = 10A, I_B = 1A$ | – | 0.3 | – | V |
| Transition Frequency | f_T | $V_{CB} = 2V, I_E = 1A$ | – | 300 | – | kHz |

