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NTE1103 Integrated Circuit General Purpose, Low Noise Preamplifier

Features:

- Low Noise
- Wide Operating Supply Voltage Range: $V_{CC} = 3V$ to $12V$

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

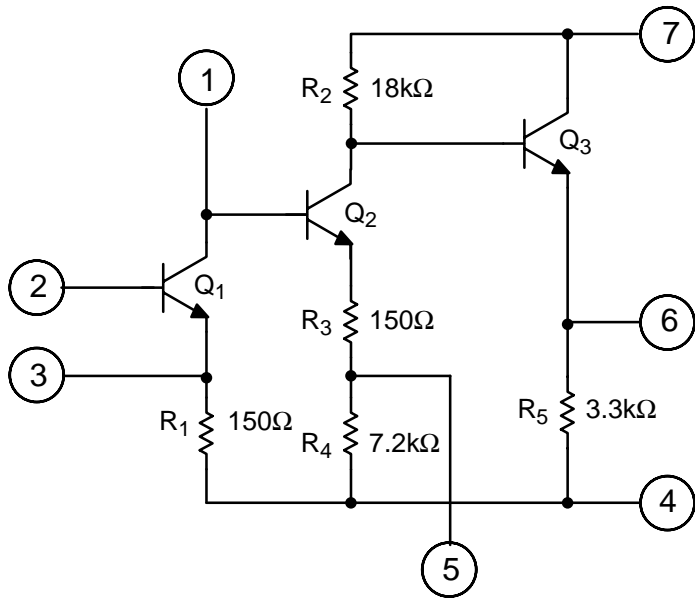
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|--|-------------------------------|
| Supply Voltage, V_{CC} | 15V |
| Power Dissipation, P_D | 200mW |
| Derate Above $25^\circ C$ | 2mW/ $^\circ C$ |
| Operating Temperature Range, T_{opr} | -30° to $+75^\circ C$ |
| Storage Temperature Range, T_{stg} | -55° to $+125^\circ C$ |

Electrical Characteristics: ($T_A = +25^\circ C$, $V_{CC} = 8V$, $R_L = 22k\Omega$ unless otherwise specified)

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|--------------------------------|----------|---|------|-----|------|---------------|
| Supply Current | I_{CC} | $V_{IN} = 0$ | 1.6 | 2.0 | 2.6 | mA |
| Voltage Gain (Open Loop) | G_{VO} | $f = 1kHz$, $V_{IN} = -80dBm$ | 62 | – | – | dB |
| Voltage Gain (Closed Loop) | G_V | $f = 1kHz$, $R_{NF} = 22k\Omega$, $V_{IN} = -45dBm$, Note 1 | 40.5 | – | 46.5 | dB |
| Maximum Output Voltage | V_{OM} | $f = 1kHz$, THD = 1% | 1.0 | – | – | V_{rms} |
| Equivalent Input Noise Voltage | V_{NI} | NAB equalizer, $R_g = 2.2k\Omega$, $f = 1kHz$ | – | 2.0 | – | μV_{rms} |

Note 1. In regard to the value of voltage gain (closed loop voltage), it is possible to be classified.

Equivalent Circuit



Pin Connection Diagram (Front View)

