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NTE1682 Integrated Circuit Pre-Amplifier Circuit for Remote Control Signal Receivers

Description:

The NTE1682 is an integrated circuit in a 9-Lead SIP type package designed for use in infrared and various types of remote control signal receivers.

Features:

- High Sensitivity, High Gain, Low Noise
- Waveform Shaping Circuit
- Voltage Regulator Circuit

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

| | |
|--|---|
| Supply Voltage, V_{CC} | 15.6V |
| Supply Current, I_{CC} | 25mA |
| Power Dissipation, P_D | 400mW |
| Operating Ambient Temperature Range, T_{opr} | -20° to $+75^{\circ}\text{C}$ |
| Storage Temperature Range, T_{stg} | -55° to $+150^{\circ}\text{C}$ |

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

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|--------------------------------|--------------|--|------|------|------|-----------|
| Operating Supply Voltage Range | V_{CC} | | 9.6 | 12.0 | 14.4 | V |
| Supply Current | I_{CC} | $V_{CC} = 12\text{V}$, Input Open | 5 | 8 | 10 | mA |
| Bias Voltage | V_{3-5} | $V_{CC} = 12\text{V}$, Input Open | 1.65 | 2.4 | 3.3 | V |
| Amplifier Output Voltage | V_7 | $V_{il} = 5V_{P-P}$ Sine Wave, $f_{il} = 42\text{kHz}$, Att: 0db | 2.5 | 3.2 | - | V_{P-P} |
| | | $V_{il} = 5V_{P-P}$ Sine Wave, $f_{il} = 42\text{kHz}$, Att: 80db | 0.8 | 2.3 | - | V_{P-P} |
| Pulse Output, High Level | $V_{4-5(H)}$ | $V_{CC} = 12\text{V}$, $V_D = 1.3\text{V}$ to 4.0V | 3.5 | 4.4 | 5.0 | V |
| Pulse Output, Low Level | $V_{4-5(L)}$ | $V_{CC} = 12\text{V}$, $V_D = 0\text{V}$ to 0.5V | - | 0.55 | 0.8 | V |

Pin Connection Diagram (Front View)

