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## NTE1106 Integrated Circuit FM Stereo Demodulator

**Features:**

- Operates from a Wide Range of Power ( $V_{opr} = 4V$  to  $12V$ )
- Low Noise Dissipation
- Automatic Stereo Switching
- Includes Driver for Stereo-Lamp Indicator

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

|  |                       |
|--|-----------------------|
| Power Supply Voltage (Terminal 14), $V_{CC}$ ..... | 12V                   |
| Lamp Indication Current, $I_L$ .....               | 40mA                  |
| Power Dissipation, $P_D$ .....                     | 500mW                 |
| Operating Temperature Range, $T_{opr}$ .....       | -15 to $+75^\circ C$  |
| Storage Temperature Range, $T_{stg}$ .....         | -55 to $+125^\circ C$ |

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

| Parameter                                | Symbol      | Test Conditions   | Min         | Typ  | Max | Unit       |            |
|--|-------------|---|-------------|------|-----|------------|------------|
| Input Impedance                          | $R_{IN}$    | $f = 20Hz$  | -           | 20   | -   | k $\Omega$ |            |
| Stereo Channel Separation<br>$f = 100Hz$ |             | Input Composite Signal = $100mV_{rms}$<br>(Pilot Lamp Signal 10%)<br>$V_{CC} = 12V$ | -           | 40   | -   | dB         |            |
|  |             |   | $f = 1kHz$  | -    | 45  | -          | dB         |
|  |             |   | $f = 10kHz$ | -    | 40  | -          | dB         |
| Output Level Difference                  |             | Monaural Input $V_{CC} = 12V$   | -           | 0.5  | -   | dB         |            |
| Frequency Rejection                      | $SCA_{rej}$ | $f = 19kHz$   | -           | 30   | -   | dB         |            |
|  |             | $f = 39kHz$   | -           | 25   | -   | dB         |            |
| Lamp Indicator (Note 1)<br>ON - 19kHz    |             | 4 GND $2k\Omega$  | -           | 5    | 10  | $mV_{rms}$ |            |
|  |             |   | OFF - 19kHz | 1    | 5   | -          | $mV_{rms}$ |
| Audio Muting                             |             | Muting ON Voltage   | 0.6         | 0.75 | -   | V          |            |
|  |             | Muting OFF Voltage  | -           | 1.0  | 1.3 | V          |            |
| Power Dissipation                        | $P_D$       | Including Lamp Current  | -           | 80   | -   | mW         |            |
|  |             | Reject Lamp Current   | -           | 35   | -   | mW         |            |

Note 1. Connect at  $2k\Omega$  resistor between terminal 4 and GND, Lamp (ON) 19kHz Input Level, Lamp (OFF) 19kHz Input Level.

**Pin Connection Diagram**  
(Front View)

