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NTE750 Integrated Circuit Four Stage FM/IF Amplifier, Limiter

Features:

- High AM Rejection: 60dB Typ.
- Wide Range of Supply Voltages: 8V to 18V
- Low Distortion: 0.5% Typ.

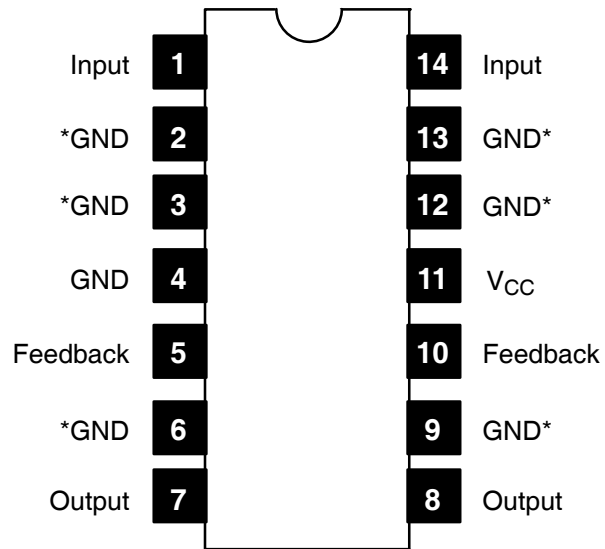
Absolute Maximum Ratings: ($T_A = +25^\circ\text{C}$, unless otherwise specified)

| | |
|--|-------------------------------------|
| Output Voltage (Pin 7 & 8) | 40V |
| Supply Current to Pin 11 | 20mA |
| Input Signal Voltage (Single-Ended) | $5V_{p-p}$ |
| Input Signal Voltage (Differential) | $10V_{p-p}$ |
| Power Dissipation (Package Limitation), P_D | 625mW |
| Derate Above $T_A = +25^\circ\text{C}$ | 5.0mW/ $^\circ\text{C}$ |
| Operating Ambient Temperature Range, T_{opr} | 0° to $+75^\circ\text{C}$ |
| Storage Temperature Range, T_{stg} | -65° to $+150^\circ\text{C}$ |

Electrical Characteristics: ($V_+ = 15V$, $f = 10.7\text{MHz}$, $T_A = +25^\circ\text{C}$, $R_S = 820\Omega$, unless otherwise specified)

| Parameter | Test Conditions | Min | Typ | Max | Unit |
|--|-------------------------------------|-----|-------------|-----|------------------|
| Power Supply Voltage Range | | 8 | 15 | 18 | V |
| Total Circuit Current | | - | 16 | - | mA |
| Total Output Stage Current | | - | 4.2 | - | mA |
| Device Dissipation | | - | 125 | - | mW |
| Internal Zener Voltage | | - | 5.2 | - | V |
| Input Signal for 3dB Limiting | | - | 175 | 250 | $\mu V_{(rms)}$ |
| Output Current Swing | | 3.5 | 4.2 | 5.0 | mA_{p-p} |
| AM Rejection 10mV to 1.0V rms input, FM @ 100%, Foster Steely Detector | AM @ 80%, Foster Steely Detector | - | 60 | - | dB |
| Max. AM Signal before Breakup | FM @ 100%, AM @ 80% | - | - | 1.4 | V_{rms} |
| Admittance Parameters | Y_{11} | - | $12 + j320$ | - | μmhos |
| | Y_{12} | - | $j0.6$ | - | μmho |
| | Y_{21} | - | $8 + j5.9$ | - | mhos |
| | Y_{22} | - | $15 + j230$ | - | μmhos |

Pin Connection Diagram



* **NOTE:** Pins 2, 3, 6, 9, 12, and 13 are not internally connected, but should be grounded for maximum stability.

