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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.

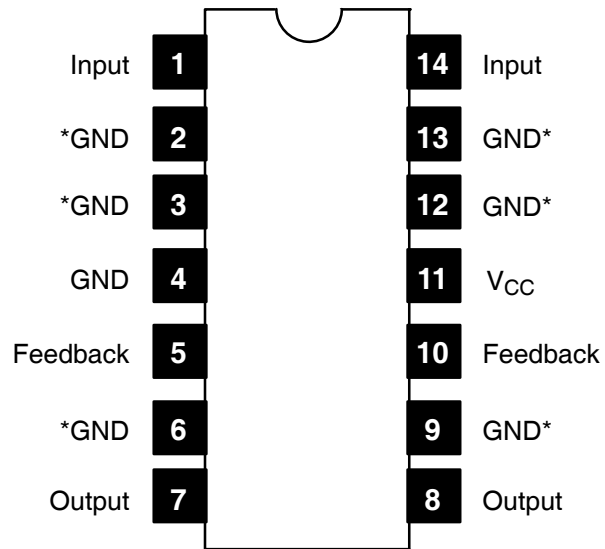
**Absolute Maximum Ratings:** ( $T_A = +25^\circ\text{C}$ , unless otherwise specified)

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, $T_{opr}$ .....	$0^\circ$ to $+75^\circ\text{C}$
Storage Temperature Range, $T_{stg}$ .....	$-65^\circ$ 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	$Y_{11}$	-	$12 + j320$	-	$\mu\text{mhos}$
	$Y_{12}$	-	$j0.6$	-	$\mu\text{mho}$
	$Y_{21}$	-	$8 + j5.9$	-	mhos
	$Y_{22}$	-	$15 + j230$	-	$\mu\text{mhos}$

### Pin Connection Diagram



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

