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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.

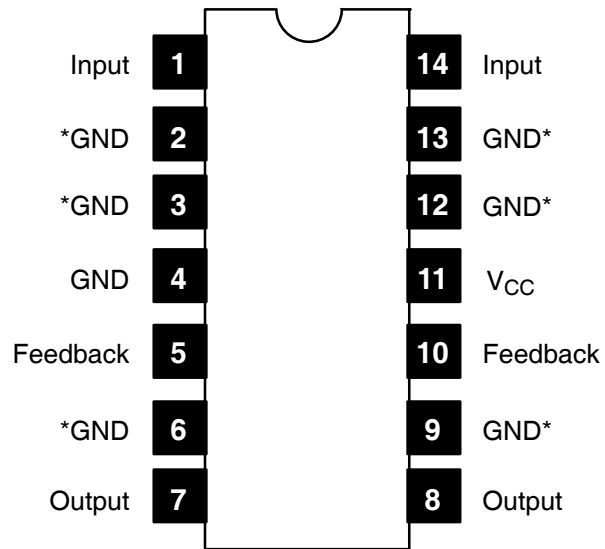
Absolute Maximum Ratings: ($T_A = +25^\circ\text{C}$, unless otherwise specified)

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°C
Storage Temperature Range, T_{stg}	-65° to +150°C

Electrical Characteristics: ($V_+ = 15\text{V}$, $f = 10.7\text{MHz}$, $T_A = +25^\circ\text{C}$, $R_S = 820\Omega$, 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	$\mu\text{V}_{(rms)}$
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.

