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NTE1082 Integrated Circuit FM IF Amplifier

Description:

The NTE1082 is a silicon monolithic integrated circuit intended for use as a three-stage FM IF amplifier having exceptionally high voltage gain and limiting characteristics. From pin 1 the stabilized voltage can be applied to the mixer stage.

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

Supply Voltage, V_{CC} 15V
Input Voltage, V_{IN} $\pm 3.0\text{V}$
Power Dissipation, P_D 300mW
Operating Temperature Range, T_{opr} -20° to $+75^\circ\text{C}$
Storage Temperature Range, T_{stg} -40° to $+125^\circ\text{C}$

Electrical Characteristics: ($T_A = +25^\circ\text{C}$, $V_{CC} = 10\text{V}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Circuit Current	I_{CC}	DC Current	8.0	12.5	17.0	mA
Output Current	I_{OUT}		0.9	1.6	2.3	mA
Input Voltage	V_I		4.4	5.1	5.8	V
Voltage Gain	A_V	$f = 10.7\text{MHz}$, $R_G = 50\Omega$, $R_L = 1\text{k}\Omega$, $V_I = 40\text{dB}$	60	66	72	dB
Input Resistance	R_{IN}	$f = 10.7\text{MHz}$	—	10	—	$\text{k}\Omega$
Input Capacitance	C_{IN}		—	5	—	pF
Output Resistance	R_{OUT}		—	30	—	$\text{k}\Omega$
Output Capacitance	C_{OUT}		—	3	—	pF

Pin Connection Diagram

