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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,  $T_{opr}$  .....  $-20^\circ$  to  $+75^\circ\text{C}$   
 Storage Temperature Range,  $T_{stg}$  .....  $-40^\circ$  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

