

## NTE1104 Integrated Circuit Wide and Narrow Band Amp, FM/IF Limiter

### Applications:

- For FM IF Amplifier
- For TV SIF Amplifier

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

Supply Voltage, $V_{CC}$	15V
Output Voltage, $V_{OUT}$	24V
Input Voltage (Between Pin1 and Pin2), $V_{IN}$	$\pm 15V$
Power Dissipation, $P_D$	400mW
Derate Above $25^\circ\text{C}$	3mW/ $^\circ\text{C}$
Operating Temperature Range ( $V_{CC} = 12V$ ), $T_{opr}$	$-30$ to $+75^\circ\text{C}$
Storage Temperature Range, $T_{stg}$	$-55$ to $+125^\circ\text{C}$

### Electrical Characteristics: ( $T_A = +25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Supply Current	$I_{CC}$	$V_{CC} = 12V$	5.3	9.5	14.0	mA
		$V_{CC} = 9V$	—	6.5	—	mA
Power Dissipation	$P_D$	$V_{CC} = 12V$	—	114	—	mW
		$V_{CC} = 9V$	—	59	—	mW
Voltage Gain	$G_V$	$V_{CC} = 12V$ , $R_g = 50\Omega$ , $R_L = 1k\Omega$	—	26.5	—	dB
Input Impedance		$V_{CC} = 12V$ , $f = 10.7\text{MHz}$				
Parallel Input Resistance	$r_{ip}$		—	35	—	k $\Omega$
Parallel Input Capacitance	$c_{ip}$		—	8.0	—	pF
Output Impedance						
Parallel Input Resistance	$r_{op}$		—	80	—	k $\Omega$
Parallel Input Capacitance	$c_{op}$		—	3.0	—	pF
Forward Transfer Admittance	$y_f$		—	30	—	mmhos
Reverse Transfer Admittance	$y_r$		—	2.0	—	$\mu\text{mhos}$

**Pin Connection Diagram**  
(Front View)

