



ELECTRONICS, INC.  
 44 FARRAND STREET  
 BLOOMFIELD, NJ 07003  
 (973) 748-5089  
<http://www.nteinc.com>

## NTE1040 Integrated Circuit FM IF Amp

**Description:**

The NTE1040 is a silicon monolithic integrated circuit designed for FM-IF Amplifiers. This device features the capability of nonsaturating limiter operation with a suitable output load, rendering it ideally adaptable to FM-IF limiter application.

Applications include FM-IF limiter amplifiers, TV sound IF amplifiers, and chroma reference oscillators for color TV.

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

Supply Voltage,  $V_{CC}$  ..... 20V  
 Input Voltage,  $V_{in}$  .....  $\pm 5V$   
 Power Dissipation,  $P_T$  ..... 200mW  
 Operating Temperature Range,  $T_{opr}$  .....  $-20^\circ$  to  $+70^\circ\text{C}$   
 Storage Temperature Range,  $T_{stg}$  .....  $-55^\circ$  to  $+125^\circ\text{C}$

**Electrical Characteristics:** ( $V_{CC} = 12V$ ,  $T_A = 25^\circ\text{C}$  unless otherwise specified)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Power Dissipation	$P_T$		-	110	170	mW
DC Total Current	$I_T$		5.4	9.15	14.1	mA
Power Gain	PG	$f = 10.7\text{MHz}$	27	31	-	dB
Forward Transadmittance	$ y_f $	$V_{in} = 10\text{mVrms}, f = 10.7\text{MHz}$	-	30	-	mhos
Reverse Transadmittance	$ y_r $		-	0.002	-	mhos
Input Conductance	$g_i$		-	0.4	-	mhos
Input Capacitance	$C_i$		-	7.0	-	pF
Output Conductance	$g_o$		-	0.03	-	mhos
Output Capacitance	$C_o$		-	2.5	-	pF
Noise Figure	NF	$f = 10.7\text{MHz}$	-	6	-	dB

**Pin Connection Diagram**  
(Front View)

