



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

## NTE760 Integrated Circuit FM IF Amp

**Description:**

The NTE760 is a monolithic silicon integrated circuit designed especially for 10.7MHz IF applications.

**Features:**

- High Stable Gain at 10.7MHz (40dB typ)
- Low Feedback Capacitance ( $|y_{12}| = 0.01\text{mmho}$  typ)
- Non-Saturating Limiting (With Suitable Load)

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

Power Supply Voltage,  $V_+$  ..... 20V  
 Output Collector Voltage,  $V_4$  ..... 20V  
 Input Voltage,  $V_2, V_5$  (Note 1) .....  $\pm 5.0\text{V}$   
 Power Dissipation ( $T_A = +25^\circ\text{C}$ , Package Limitation),  $P_D$  ..... 1W  
     Derate above  $+25^\circ\text{C}$  ..... 10mW/ $^\circ\text{C}$   
 Operating Temperature Range,  $T_A$  .....  $-10^\circ$  to  $+75^\circ\text{C}$

Note 1 Differential Voltage Swing

**Electrical Characteristics:** ( $V_+ = 12$  Volts,  $f = 10.7\text{MHz}$ ,  $T_A = +25^\circ\text{C}$ , unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit
Total Current Drain	$I_D$	-	-	10	mA
Output Quiescent Current	$I_Q$	1.75	3.2	5.0	mA
Output Saturation Voltage	$V_{(sat)}$	-	3.5	-	Volts
Forward Transadmittance	$ y_{21} $	25	-	-	mmhos
Reverse Transadmittance	$ y_{12} $	-	0.01	-	mmhos
Input Capacitance	$C_{in}$	-	6.0	-	pF
Input Conductance	$G_{in}$	-	0.4	-	mmho
Output Capacitance	$C_{out}$	-	2.5	-	pF
Output Conductance	$G_{out}$	-	35	-	$\mu\text{mhos}$
Noise Figure ( $R_S = 750\Omega$ )	$N_F$	-	7.0	-	dB
Maximum Stable Gain (Stern Factor = 3)	$A_V$	-	40	-	dB
Input Voltage (3.0dB Limiting)	$e_{in}$	-	60	-	mV

### Pin Connection Diagram

