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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 $+25^\circ\text{C}$ $10\text{mW}/^\circ\text{C}$
 Operating Temperature Range, T_A -10° 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	$V_{(\text{sat})}$	-	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	-	μmhos
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

