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NTE1039 Integrated Circuit FM IF Amplifier

Description:

The NTE1039 is a silicon monolithic integrated circuit designed for use as a FM-IF amplifier. It features the capability of nonsaturating limiter operation with a suitable output load, rendering it ideally adaptable to FM-IF limiter applications.

Applications:

- FM-IF Limiter Amplifiers
- TV Sound IF Amplifiers
- Chroma Reference Oscillators for Color TVs

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_D	200mW
Operating Temperature Range, T_{opr}	-30° to $+70^\circ\text{C}$
Storage Temperature Range, T_{stg}	-55° to $+125^\circ\text{C}$

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Power Dissipation	P_D		-	110	170	mW
DC Total Current	I_r		5.4	9.15	14.1	mA
Power Gain	PG	$f = 10.7\text{MHz}$	27	31	-	dB
Forward Transadmittance	$ Y_f $	$V_{IN} = 10\text{mV}_{rms}, f = 10.7\text{MHz}$	-	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	-

Pin Connection Diagram

