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## NTE1096 Integrated Circuit TV AFT, High Frequency Wide-Band Amplifier/Phase Detector

**Description:**

The NTE1096 is an IC for use in TV circuits, especially for Automatic Frequency Tuning. It contains a wide-band amplifier and phase detector.

**Features:**

- $V_{CC}$  of 100V  $\pm$ 10% due to Dual Zener Regulation

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

Current Supply, $I_{14}$ .....	60mA
Power Dissipation, $P_D$ .....	700mW
Thermal Dissipation, $K_\theta$ .....	7mW/ $^\circ\text{C}$
Operating Temperature Range, $T_{opr}$ .....	$-20^\circ$ to $+85^\circ\text{C}$
Storage Temperature Range, $T_{stg}$ .....	$-40^\circ$ to $+125^\circ\text{C}$

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Power Dissipation	$P_d$	$V_{CC} = 100\text{V}$ , $R_S = 5.1\text{k}\Omega$ , Note 1	150	200	250	mW
Loud Current	$I_{CC}$	$V_{14} = 9\text{V}$ , $V_{CC} = 9\text{V}$	4.3	6.3	9.5	mA
Voltage or Current at Specified Pin	$V_{14}$	$V_{CC} = 100\text{V}$ , $R_S = 5.1\text{k}\Omega$ , Note 1	11.1	11.8	12.5	V
	$I_4$		1.0	2.1	4.3	mA
	$V_7$		5.0	6.5	8.0	V
	$V_{7-8}$		-1.5	0	1.5	V
Signal In to Limiter	$V_{i(lim)}$	$f = 58.75\text{MHz}$	-	100	-	mV

Note 1.  $R_S$  is a  $5.1\text{k}\Omega \pm 5\%$ , 2W resistor in series with Pin14 and  $V_{CC}$

### Pin Connection Diagram

