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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 ±10% due to Dual Zener Regulation

**Absolute Maximum Ratings:** ($T_A$ = +25°C unless otherwise specified)

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

**Electrical Characteristics:** ($T_A$ = +25°C unless otherwise specified)

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Power Dissipation | $P_d$ | $V_{CC}$ = 100V, $R_S$ = 5.1kΩ, Note 1 | 150 | 200 | 250 | mW |
| Loud Current | $I_{CC}$ | $V_{14}$ = 9V, $V_{CC}$ = 9V | 4.3 | 6.3 | 9.5 | mA |
| Voltage or Current at Specified Pin | $V_{14}$ | $V_{CC}$ = 100V, $R_S$ = 5.1kΩ, 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 = 58.75MHz | – | 100 | – | mV |

Note 1. $R_S$ is a 5.1kΩ ± 5%, 2W resistor in series with Pin14 and $V_{CC}$

**Pin Connection Diagram**




