ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748–5089

NTE836
Linear Integrated Circuit
TV Horizontal Processor

Description:

The NTE836 is a TV Horizontal Processor in an 8–Lead DIP type package that includes a phase detector, oscillator and pre–driver. This device is designed for use in all types of television receivers that have negative flyback inputs.

Features:

- Internal Shunt Regulator
- Preset Hold Control Capability
- ± 300Hz Typical Pull–In
- Linear Balanced Phase Detector
- Variable Output Duty Cycle for Driving Tube or Transistor
- Low Thermal Frequency Drift
- Small Static Phase Error
- Adjustable DC Loop Gain
- Negative Flyback Inputs

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

Supply Current 40mA
Output Voltage 40V
Output Current 30mA
Sync Input Voltage (Pin3) . . . . . $5.0V_{(p–p)}$
Flyback Input Voltage (Pin4) . . . . . $5.0V_{(p–p)}$
Power Dissipation, P_D 625mW
Derate above T_A . . . . . 5.0mW/°C
Operating Ambient Temperature Range, T_{opr} . . . . . 0° to +75°C
Storage Temperature Range, T_{stg} . . . . . –65° to +150°C

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

Parameter	Test Conditions	Min	Typ	Max	Unit
Regulated Voltage (Pin6)		8.0	8.6	9.0	V
Supply Current (Pin6)		–	20	–	mA
Collector–Emitter Saturation Voltage	I_C = 20mA, Pin1	–	0.15	0.25	V
Voltage (Pin4)		–	2.0	–	V
Oscillator Pull–In Range		–	±300	–	Hz
Oscillator Hold–In Range		–	±900	–	Hz
Static Phase Error	Δf = 300Hz	–	0.5	–	µs
Free–Running Frequency Supply Dependence	S1 in Position 2	–	±3.0	–	Hz/V
Phase Detector Leakage (Pin5)	All Switches in Position 2	–	–	±1.0	µA
Sync Input Voltage (Pin3)		2.0	–	5.0	$V_{P–P}$
Sawtooth Input Voltage (Pin4)		1.0	–	3.0	$V_{P–P}$

Pin Connection Diagram