

NTE815 Integrated Circuit TV Horizontal Processor

Description:

The NTE815 is an integrated circuit in an 8-Lead DIP type package containing low-level horizontal sections including phase detector, oscillator and pre-driver—a device designed for use in all types of television receivers.

Features:

- Internal Shunt Regulator
- Preset Hold Control Capability
- $\pm 300\text{Hz}$ 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

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

Supply Current	40mA
Output Voltage, V_O	40V
Output Current, I_O	30mA
Sync Input Voltage (Pin 3)	$5V_{(p-p)}$
Flyback Input Voltage (Pin 4)	$5V_{(p-p)}$
Power Dissipation (Package limitation), P_D	625mW
Derate above 25°	$5.0\text{mW}/^\circ\text{C}$
Operating Ambient Temperature Range, T_A	0° to $+75^\circ\text{C}$
Storage Temperature Range, T_{stg}	-65° to $+150^\circ\text{C}$

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

Parameter	Test Conditions	Min	Typ	Max	Unit
Regulated Voltage (Pin6)		8.0	8.4	8.8	V
Supply Current (Pin6)		–	20	–	mA
Collector–Emitter Saturation Voltage (Output Transistor)	$I_C = 20\text{mA}$, Pin1	–	0.30	0.35	V
Voltage (Pin4)		–	2.0	–	V
Oscillator Pull–In Range		–	± 300	–	Hz
Oscillator Hold–In Range		–	± 900	–	Hz
Static Phase Error	$\Delta f = 300\text{Hz}$	–	0.5	–	μs
Free–Running Frequency Supply Dependence		–	± 3.0	–	Hz/V
Phase Detector Leakage (Pin5)		–	–	± 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

