

NTE1006 Integrated Circuit FM Multiplex Stereo Demodulator

Description:

The NTE1006 is an integrated circuit in a 14-Lead DIP type package designed for use as an FM multiplex stereo demodulator. This device includes all the fundamental functions including a composite amp, doubler, decoder, separation controller, and lamp driver.

Features:

- Suitable for Low Level Input

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

Maximum Supply Voltage (V_{1-7} , V_{6-7}), $V_{CC\text{max}}$ 20V

Lamp Driving Current, I_L 40mA

Allowable Power Dissipation ($T_A \leq +80^\circ\text{C}$), $P_{D\text{max}}$ 370mW

Operating Temperature Range, T_{opr} -20° to $+80^\circ\text{C}$

Storage Temperature Range, T_{stg} -40° to $+125^\circ\text{C}$

Recommended Operating Condition: ($T_A = +25^\circ\text{C}$)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Recommended Supply Voltage	V_{CC}		4	–	12	V

Electrical Characteristics: ($T_A = +25^\circ\text{C}$, $V_{CC} = 6\text{V}$, $R_L = 3.3\text{k}\Omega$, Input = 100mV, $f = 1\text{kHz}$, L+R = 90%, Pilot = 10% unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Current	I_{CCO}		–	7.0	10.5	mA
Input Resistance	r_i		–	20	–	$\text{k}\Omega$
Channel Separation	Sep		30	45	–	dB
Total Harmonic Distortion (L+R)	THD		–	0.3	1.0	%
Lamp On Input Voltage	v_i		50	70	100	mV
Output Voltage	v_O		71	100	136	mV
Channel Balance			–	0.2	2.0	dB
SCA Rejection		L+R = 80%, Pilot = 10%, SCA = 10%	–	55	–	dB

Pin Connection Diagram

