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

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°C unless otherwise specified)
Maximum Supply Voltage ($V_{1–7}$, $V_{6–7}$), V_{CC}max 20V
Lamp Driving Current, I_L 40mA
Allowable Power Dissipation ($T_A \le$ +80°C), $P_D$max 370mW
Operating Temperature Range, T_{opr} . . . . . –20° to +80°C
Storage Temperature Range, T_{stg} . . . . . –40° to +125°C

Recommended Operating Condition: (T_A = +25°C)

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

Electrical Characteristics: (T_A = +25°C, V_{CC} = 6V, R_L = 3.3kΩ, Input = 100mV, f = 1kHz, 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	–	kΩ
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