



ELECTRONICS, INC.
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NTE1005 Integrated Circuit FM Stereo Demodulator

Functions:

Composite signal amp., doubler, decoder, separation controller, and lamp driver

Features:

- 19kHz and 38kHz Coils
- SCA Rejection Ratio: 50dB
- No Special Adjusting Needed for SCA Rejecting
- Also Separation Controller

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

Maximum Supply Voltage (V_{1-7}, V_{6-7}), V_{CCmax} 20V
 Lamp Driving Current, I_L 40mA
 Allowable Power Dissipation, P_{Dmax} 370mW
 Operation Temperature Range, T_{opg} -20° to $+80^\circ\text{C}$
 Storage Temperature Range, T_{stg} -40° to $+125^\circ\text{C}$

Recommended Operation Condition: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Recommended Supply Voltage, V_{CC}
 Without 1500p at Pin2 5.5 to 12V
 With 1500p at Pin2 7.5 to 12V

Electrical Characteristics: ($T_A = +25^\circ\text{C}$, $V_{CC} = 9\text{V}$, $R_L = 2.2\text{k}\Omega$, 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} | | – | 10 | 16 | mA |
| Input Resistance | r_i | | – | 20k | – | Ω |
| Channel Separation | Sep | | 30 | 45 | – | dB |
| Total Harmonic Distortion (L + R) | THD | | – | 0.3 | 1.0 | % |
| Input Voltage for Lamp ON | V_i | | 50 | 70 | 100 | mV |
| Output Voltage | V_O | | 47 | 70 | 100 | mV |
| Channel Balance | CB | | – | – | 2.0 | dB |
| SCA Rejection | | $L + R = 80\%$, Pilot = 10%, SCA = 10% | – | 55 | – | dB |

Pin Connection Diagram

