



**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,  $T_{opg}$  .....  $-20^\circ$  to  $+80^\circ\text{C}$   
 Storage Temperature Range,  $T_{stg}$  .....  $-40^\circ$  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	–	$\Omega$
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

