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NTE1562 Integrated Circuit Programmable Search System for Audio Cassette

Description:

The NTE1562 is a monolithic integrated circuit consisting of a program selector capable of automatic item selection with memory for 3 programs. The detection section is provided with protection from misoperation due to noise. Consideration has been given as well to prevention of misoperation when power is applied. The memory section is provided with LED driving outputs, enabling a display of the program selection status.

Features:

- Built-in Protective Circuit for Overcurrent
- Detection Operation can be Stopped by External Input
- Provided with a Resetting Function for the Power Supply Switching On
- Wide Range of the Working Power Supply Voltage (4.5V to 14V)

Applications:

- Tape Decks
- Radio Cassette Tape Recorders
- Music Centers
- Accompaniment Music Players

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

Supply Voltage, V_{CC} 14V
 Power Dissipation (Note 1), P_D 540mW
 Operating Temperature Range, T_{opr} -25° to $+75^\circ\text{C}$
 Storage Temperature Range, T_{stg} -50° to $+125^\circ\text{C}$

Note 1. Derating is done at 5.4mW/ $^\circ\text{C}$ for operation above $T_A = +25^\circ\text{C}$.

Electrical Characteristics: ($T_A = +25^\circ\text{C}$, $V_{CC} = 9\text{V}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Current	I_Q		-	10	25	mA
Input Discriminating Voltage	V_{IN}	$f = 10\text{kHz}$, $C_f = 1\mu\text{F}$	-55	-52	-49	dBm
Input Current	I_{IN}	$V_{IN} = 0\text{V}$	-	0.2	2.0	μA
High-Level Output Voltage	V_{OH}	$I_1 = 40\text{mA}$	6.0	7.0	-	V
Low-Level Output Voltage	V_{OL}	$I_2 = 1.0\text{mA}$	-	0.3	0.5	V

Electrical Characteristics (Cont'd): ($T_A = +25^\circ\text{C}$, $V_{CC} = 9\text{V}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output Limiting Current	I_{LIM}		-	120	-	mA
Blank Section Detection Timing	T_D	$R_D = 220\text{k}\Omega$, $C_D = 0.47\mu\text{F}$	55	75	95	ms
Output Pulsewidth	T_W	$R_W = 220\text{k}\Omega$, $C_D = 0.47\mu\text{F}$	55	75	95	ms
Item Detection Time	T_C	$R_D = 220\text{k}\Omega$, $C_D = 2.2\mu\text{F}$	30	75	130	ms
Pin 15 Threshold Voltage	V_{15TH}		0.8	1.3	1.8	V
Pin 16 Threshold Voltage	V_{16TH}		0.4	0.65	0.9	V
LED Drive Current	I_{LED}		7	10	-	mA

Pin Connection Diagram

