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NTE799 Integrated Circuit Four Channel “SQ” Decoder

Description:

The NTE799 consists of two high input impedance preamplifiers which are fed with left total, L_T , and right total, R_T signals. The preamplifiers each feed two all-phase networks which generate two L_T signals in quadrature and two R_T signals in quadrature. The four signals are matrixed to yield left front, left back, right front, and right back signals (L_F , L_B , R_F , R_B).

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

Power Supply Voltage, V_{CC} 25V
 Power Dissipation ($T_A = +25^\circ\text{C}$), P_D 750mW
 Derate Above $+25^\circ\text{C}$ 6.7mW/ $^\circ\text{C}$
 Operating Temperature Range, T_{opr} 0° to $+75^\circ\text{C}$
 Storage Temperature Range, T_{stg} -65° to $+150^\circ\text{C}$

Electrical Characteristics: ($V_{CC} = +20\text{V}$, $V_{in} = 0.5V_{(RMS)}$ @ 1kHz, $T_A = +25^\circ\text{C}$ unless otherwise specified)

Parameter	Min	Typ	Max	Unit
Supply Current Drain	11	16	21	mA
Input Impedance	1.8	3.0	–	m Ω
Output Impedance	–	5.0	–	k Ω
Channel Balance (L_F/R_F)	-1.0	0	+1.0	dB
Voltage Gain L_F/L_T or R_F/R_T	-1.0	0	+1.0	dB
Relative Voltage Gain L_B'/L_F' or R_F/R_T	-1.0	0	+1.0	dB
Maximum Input Voltage for 1% THD at Output R_T or L_T	2.0	–	–	$V_{(RMS)}$
Total Harmonic Distortion R_T or L_T	–	0.1	–	%
Signal to Noise Ratio (Short-Circuit Input $V_O = 0.5V_{(RMS)}$ with Output Noise Referenced to Output Voltage, V_O) (BW = 20Hz to 20kHz)	–	80	–	dB

Pin Connection Diagram

