

NTE2003 Integrated Circuit Dolby B-Type Noise Reduction Processor

Description:

The NTE2003 is a monolithic integrated circuit in a 16-Lead DIP type package specifically designed to realized the Dolby B-type noise reduction system.

Features:

- Reduced distortion at high frequencies and high signal levels
- Improved transient stability
- Wide Operating Voltage Range
- Low Supply Current

Absolute Maximum Ratings:

Supply Voltage, V_{CC} 24V
 Operating Temperature Range, T_{opr} 0° to +70°C
 Storage Temperature Range, T_{stg} -65° to +150°C
 Lead Temperature (During Soldering, 10sec Max), T_L +300°C

Electrical Characteristics: ($V_{CC} = 12V$, $T_A = +25^\circ C$, NB 0dB refers to 580mV_{rms} Dolby level at Pin3 unless otherwise specified)

Parameter	Test Conditions	Min	Typ	Max	Unit
Supply Voltage Range		9	-	-	V
Supply Current		12	17	22	mA
Voltage Gain (Pin5-Pin3)	1kHz Pin6 & Pin2 Connected	24	26	28	dB
(Pin3-Pin7)	1kHz (Noise Reduction Out)	-1	0	1	dB
Distortion	1kHz, 0dB; 10kHz, 10dB	-	0.05	0.1	%
Signal Handling	1kHz 0.3% Distortion	10	14	-	dB
Signal-to-Noise Ratio Encode (CCIR Weighted)	Pin6 & Pin2 Connected, RS = 10kΩ	65	70	-	dB
Decode		+75	80	-	dB

