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NTE1714S
Integrated Circuit
Remote Control Amplifier/Detector

Description:

The NTE1714S is and integrated circuit in an 8–Lead SIP type package designed for use in infrared remote control applications. It provides the high gain and pulse shaping needed to couple the signal from an IR receiver diode to the tuning control system logic.

Features:

- Wide Operating Voltage: V_{CC} = +6V to +14.4V
- Low Power Consumption: I_{CC} = 2.5mA Typ
- High Input Sensitivity: 50μV_{P-P} Typ
- Peak Detector
- Small Size Package
- Minimum External Components

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

Supply Voltage, V_{CC} 15V
Power Dissipation, P_D 270mW
Operating Temperature Range, T_{opr} . . . . . –20° to +75°C
Storage Temperature Range, T_{stg} . . . . . –40° to +125°C

Recommended Operating Conditions:

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Power Supply Voltage	V_{CC}		6.0	8.5	14.4	V
Input Frequency	f_{in}		30	–	50	kHz

Electrical Characteristics: (T_A = +25°C, V_{CC} = 8.5V, f_{in} = 40kHz unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Supply Current	I_{CC}		1.5	2.5	3.5	mA
Input Terminal Voltage	V_{IN1}		2.1	2.6	3.1	V
	V_{IN2}	I_{in} = 70μA	3.4	4.1	4.9	V
1st Stage Voltage gain	A_{VL}	Pin7 – Pin3, V_{out} = 500mV_{P-P}	–	60	–	dB
Detection Input Voltage	V_{in}		–	50	100	μV
Input Impedance	r_{in}		40	60	80	kΩ
Output Voltage	V_{OL}	I_{OL} = 0.1mA, V_{in} = 1mV_{P-P}	–	–	0.5	V
Output Leakage Current	I_{OH}	V_{OH} = 14.4V	–	–	2	μA
Noise		Input Open	Output Pin is not fall			

Pin Connection Diagram
(Front View)