



ELECTRONICS, INC.  
 44 FARRAND STREET  
 BLOOMFIELD, NJ 07003  
 (973) 748-5089  
<http://www.nteinc.com>

## NTE1529 Integrated Circuit Dual OP Amp

**Description:**

The NTE1529 is a dual operational Amplifier with a phase compensation circuit built-in. It is suited for application to various electronic circuits such as active filters and audio preamplifiers.

**Features:**

- Phase Compensation Circuit
- High Gain, Low Noise
- Output Short-Circuit Protection
- Two Circuits Symmetrically Arranged in 9-Lead plastic SIP Package

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

Voltage, Supply Voltage,  $V_{CC}$ ,  $V_{EE}$  .....  $\pm 18\text{V}$   
 Differential Input Voltage,  $V_{ID}$  .....  $\pm 30\text{V}$   
 Common-Mode Input Voltage,  $V_{ICM}$  .....  $\pm 15\text{V}$   
 Power Dissipation,  $P_D$  .....  $500\text{mW}$   
 Operating Ambient Temperature Range,  $T_{opr}$  .....  $-20^\circ$  to  $+75^\circ\text{C}$   
 Storage Temperature Range,  $T_{stg}$  .....  $-55^\circ$  to  $+125^\circ\text{C}$

**Electrical Characteristics:** ( $V_{CC} = 15\text{V}$ ,  $V_{EE} = -15\text{V}$ ,  $T_A = +25^\circ\text{C}$  unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Input Offset Voltage	$V_{I(\text{offset})}$	$R_S \leq 10\text{k}\Omega$	-	0.5	6	mV
Input Offset Current	$I_{10}$		-	5	200	nA
Input Bias Current	$I_{BIAS}$		-	-	500	nA
Voltage Gain	$G_V$	$R_L \geq 2\text{k}\Omega$ , $V_O = \pm 10\text{V}$	86	100	-	dB
Maximum Output Voltage	$V_{O(\text{max})}$	$R_L \geq 10\text{k}\Omega$	$\pm 12$	$\pm 14$	-	V
		$R_L \geq 2\text{k}\Omega$	$\pm 10$	$\pm 13$	-	V
Common-Mode Input Voltage Width	$V_{CM}$		$\pm 12$	$\pm 14$	-	V
Common-Mode Rejection Ratio	CMR		70	90	-	dB
Supply Voltage Rejection Ratio	SVR		-	30	150	$\mu\text{V/V}$
Power Consumption	$P_C$	$R_L = \infty$	-	90	170	mW
Slew Rate	SR	$R_L \geq 2\text{k}\Omega$	-	1.0	-	$\text{V}/\mu\text{s}$
Input Referred Noise Voltage	$V_{ni}$	$R_S = 1\text{k}\Omega$ , $B = 10\text{Hz} \sim 30\text{kHz}$	-	2.5	-	$\mu\text{V}_{\text{rms}}$

**Pin Connection Diagram**  
(Front View)

