

## LM6121/LM6221/LM6321 High Speed Buffer

### General Description

The LM6121 family of high speed unity gain buffers slew at 800 V/ $\mu$ s and have a small signal bandwidth of 50 MHz while driving a 50 $\Omega$  load. These buffers can deliver  $\pm$ 300 mA, and do not oscillate while driving large capacitive loads. The LM6121 features performance which is superior to the LH0002 with the additional features of current limit and thermal shutdown.

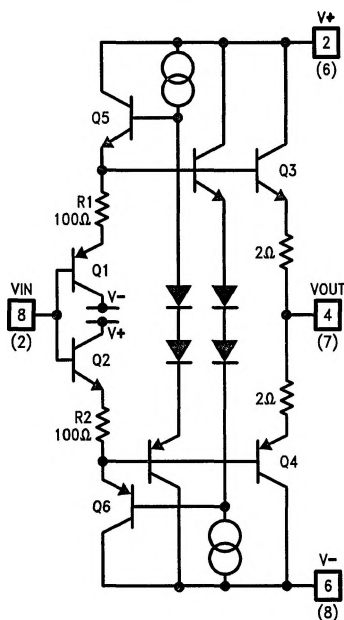
These buffers are built with National's new VIP™ (Vertically Integrated PNP) process which provides fast PNP transistors that are true compliments to the already fast NPN devices. This advanced junction-isolated process delivers high speed performance without the need for complex and expensive dielectric isolation.

### Features

- High Slew Rate (into 50 $\Omega$ )
- Wide Bandwidth (into 50 $\Omega$ )
- Peak Output Current
- High Input Impedance
- LH0002H pin compatible
- No oscillations with Capacitive loads
- 5V to  $\pm$ 16V operation
- Current and Thermal Limiting
- Slew Rate 100% tested

800 V/ $\mu$ s  
50 MHz  
 $\pm$ 300 mA  
5 M $\Omega$

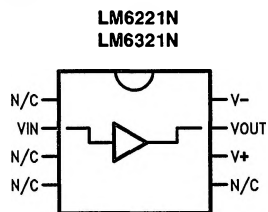
### Simplified Schematic



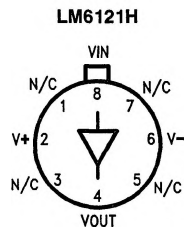
TL/H/9223-1

Numbers in ( ) are for 8 pin N DIP

### Pin Configurations



TL/H/9223-2



TL/H/9223-3

Order Number LM6121H, LM6221N or LM6321N  
See NS Package Number H08A or N08E