



LM6125/LM6225/LM6325 High Speed Buffer

General Description

The LM6125 family of high speed unity gain buffers slew at $800 \text{ V}/\mu\text{s}$ and have a small signal bandwidth of 50 MHz while driving a 50Ω load. These buffers can drive $\pm 300 \text{ mA}$, and do not oscillate while driving large capacitive loads. The LM6125 contains unique features not found in power buffers, these include: current limit, thermal shutdown, electronic shutdown, and an error flag that warns of fault conditions.

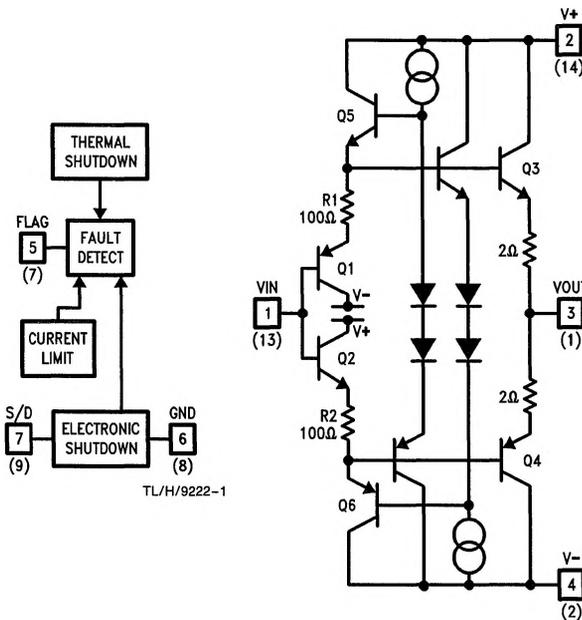
These buffers are built with National's new VIPTM (Vertically Integrated PNP) process which provides fast PNP transistors that are true compliments to the already fast NPN devices. This advanced junction-isolated process delivers high-speed performance without the need for complex and expensive dielectric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

Features

- High slew rate (into 50Ω)
- Wide bandwidth (into 50Ω)
- Peak output current
- High input impedance
- No oscillations with capacitive loads
- Current and thermal limiting
- Electronic shutdown
- Bi-state output
- Error flag warns of faults
- Slew rate 100% tested

$800 \text{ V}/\mu\text{s}$
50 MHz
 $\pm 300 \text{ mA}$
5 M Ω

Simplified Schematic



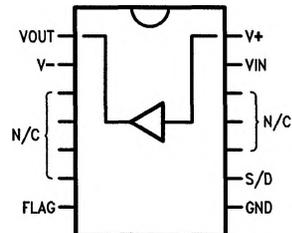
TL/H/9222-1

Numbers in () are for 14 pin N DIP.

TL/H/9222-2

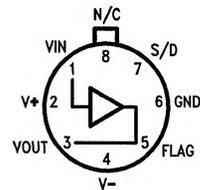
Pin Configurations

LM6225N, LM6325N



TL/H/9222-3

LM6125H



TL/H/9222-4

Order Number LM6125H, LM6225N or LM6325N
See NS Package Number H08A or N14A