



LM6125/LM6225/LM6325 High Speed Buffer

General Description

The LM6125 family of high speed unity gain buffers slew at 800 V/ μ s and have a small signal bandwidth of 50 MHz while driving a 50 Ω load. These buffers can drive ± 300 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.

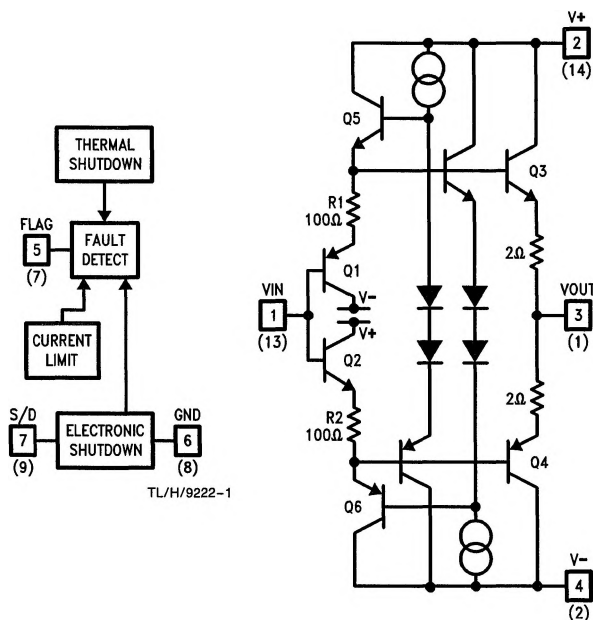
These buffers are built with National's new VIPTM (Vertically Integrated PNP) process which provides fast PNP transistors that are true compliments to the already fast NPN devices. This advanced junction-isolated process delivers high-speed performance without the need for complex and expensive dielectric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

Features

- High slew rate (into 50 Ω)
- Wide bandwidth (into 50 Ω)
- 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 V/ μ s
50 MHz
 ± 300 mA
5 M Ω

Simplified Schematic



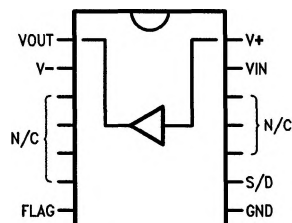
Numbers in () are for 14 pin N DIP.

TL/H/9222-2

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

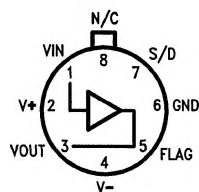
Pin Configurations

LM6225N, LM6325N



TL/H/9222-3

LM6125H



TL/H/9222-4