

FEATURES

- General
 - 5 Volt Power Supply;
 - 3.3 V CMOS Compatible Logic Interface;
 - 5V Read/Write Circuitry;
 - Very Low Power Dissipation (3 mW typical in Sleep mode);
 - Power Up/Down Data Protect Circuitry;
 - Reduced Write-to-Read Recovery Time;
 - Head Inductance Range = 1.0 μ H – 1.8 μ H (1.5 μ H typical)
- High Performance Reader
 - High Gain 500V/V typical;
 - Low Input Noise = 0.5nV/ $\sqrt{\text{Hz}}$ typical;
 - Low Input Capacitance = 4pF typical
- High Speed Writer
 - Write Current Range 5 – 30 mA b-p;
 - I_w Rise / Fall times = 8 ns;
($L_H = 1.5\mu\text{H}$, $I_w = 20\text{mA b-p}$)

DESCRIPTION

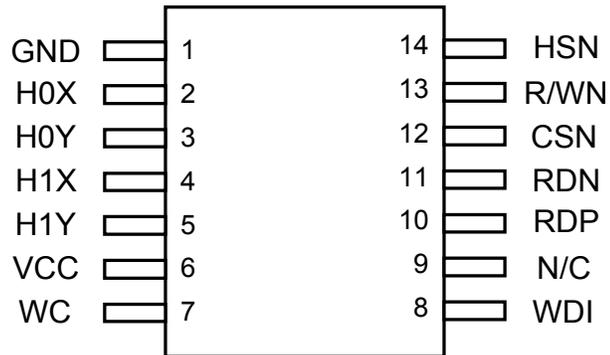
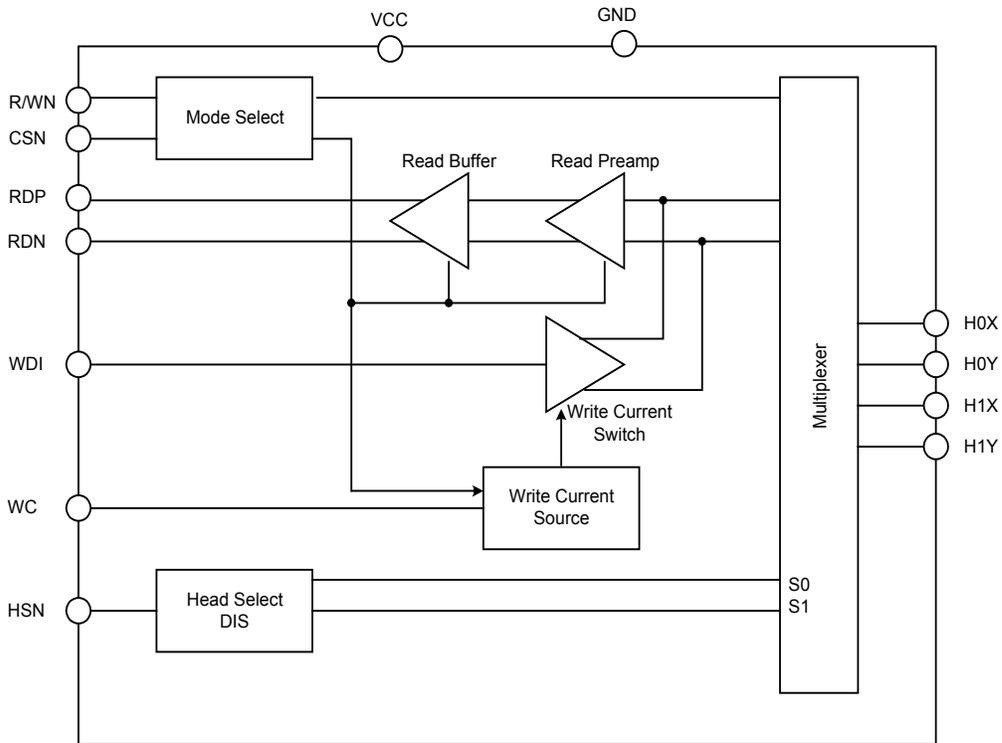
The LD3502 series provides high performance read/write preamplifiers for use in digital video cameras (DVCs). It provides write current control, data protection circuitry and a low noise read preamplifier for two channels.

Data protection is provided so that during power supply sequencing the write current generator is disabled. System write-to-read recovery time is minimized by maintaining the read channel common-mode output voltage in write mode.

Very low power dissipation is achieved with a single supply, BiCMOS processing and innovative circuit design techniques in the 5V write circuitry. When idle, the device enters a Sleep mode in which power dissipation is reduced to less than 3mW.

The LD3502 series is packaged as a 14 pin TSSOP.

BLOCK DIAGRAM



14 – Lead TSSOP