

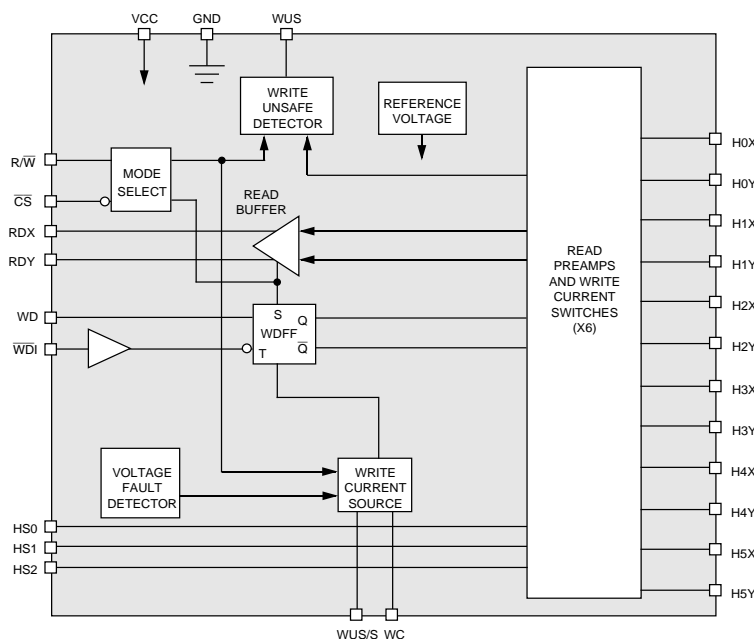
**DESCRIPTION**

The SSI 32R2214RX is a BiCMOS monolithic integrated circuit designed for use with two-terminal recording heads. It provides a low noise read amplifier, write current control, and data protection circuitry for up to four channels. The SSI 32R2214RX has an internal 900Ω damping resistor. The damping resistor is switched in during write mode and switched out during read mode. Power supply fault protection is provided by disabling the write current generator during power sequencing. System write to read recovery time is significantly improved by making the read channel outputs high impedance. Two guard pins are provided for maximum supply noise rejection. The device also offers multiple channel "servo bank write" capability to assist in servo writing operations. The SSI 32R2214RX requires only a +5V power supply.

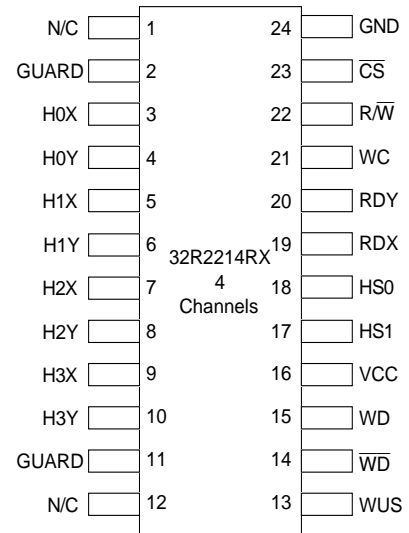
**FEATURES**

- **+5V ±10% supply**
- **Low power**
  - PD = 105 mW read mode (Nom)
  - PD = 1.0 mW Idle (Max)
- **High Performance:**
  - Read mode gain = 300 V/V
  - Input noise = 0.50 nV/√Hz (Nom)
  - Input capacitance = 7 pF (Nom)
  - Write current range = 3-25 mA
  - Nominal write current (20 mA) rise/fall time = 7.7 ns (Nom) (typical head)
  - Head voltage swing = 7.8 Vpp (Nom)
- **Servo bank-write capability**
- **Self switching damping resistance**
- **Write unsafe detection** (continued)

**BLOCK DIAGRAM**



**PIN DIAGRAM**



**24-Lead, SOL**

**CAUTION:** Use handling procedures necessary for a static sensitive component.

# SSI32R2214RX

## +5V, 4-Channel Thin Film

### Read/Write Device

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#### **FEATURES** (continued)

- Power supply fault protection
- Head short to ground protection
- Differential ECL-like write data inputs
- Write Data Flip/Flop