silicon systems®
A TDK Group Company

SSI 32R2063/2064/2065
5V, 4-Channel Thin-Film Read/Write Device
Target Specification

January 1993

DESCRIPTION

The SSI 32R2063/64/64 are a bipolar monolithic integrated circuits designed for use with two-terminal recording heads. They provide a low noise read amplifier, write current control, and data protection circuitry for up to four channels. 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 controlling the read channel common mode output voltage shift in the write mode.

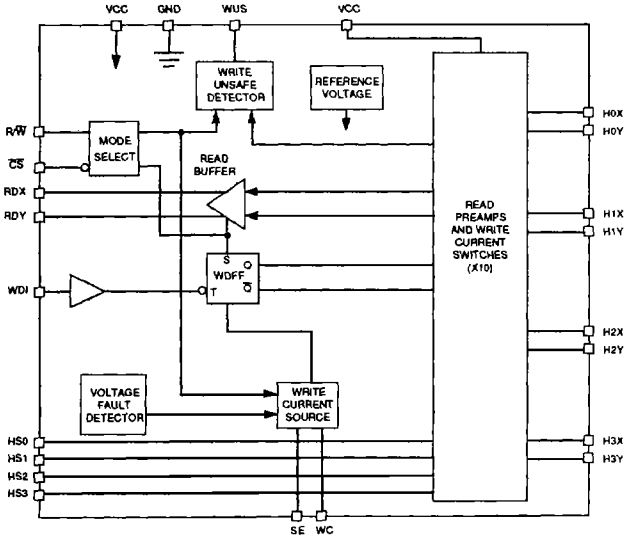
All versions provide multiple channel write capability to assist in servo writing operations. The 2063 device provides ECL write data input, with Servo Bank write selected by a TTL pin ($\overline{SE}$). The 2064 device provides TTL write data input, with servo write selected by a TTL pin ($\overline{SE}$). The 2065 device provides TTL write data input, with servo write selected by bringing the WUS/SE pin above VCC.

The SSI 32R2063/64/65 require only +5V power supplies and is available in a variety of packages.

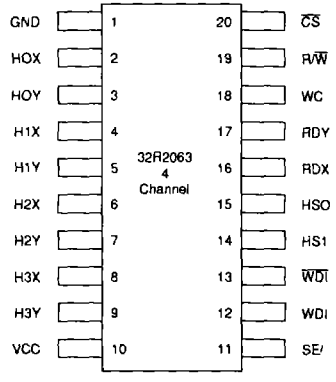
FEATURES

- **+5V ±10% supply**
- **Low power**
  - **PD = 160 mW read mode (Nom)**
  - **PD = 5 mW idle (Max)**
- **High Performance:**
  - **Read mode gain = 200 V/V**
  - **Input noise = 0.56 nV/√Hz (Nom)**
  - **Input capacitance = 16 pF (Nom)**
  - **Write current range = 5 - 40 mA**
- **Multiple channel write capability**
- **Designed for two-terminal thin-film or MIG heads with inductance up to 5.0 µH**
- **Write unsafe detection**
- **Power supply fault protection**
- **Head short to ground protection**

BLOCK DIAGRAM



PIN DIAGRAM



20-LEAD SOL, VSOP

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

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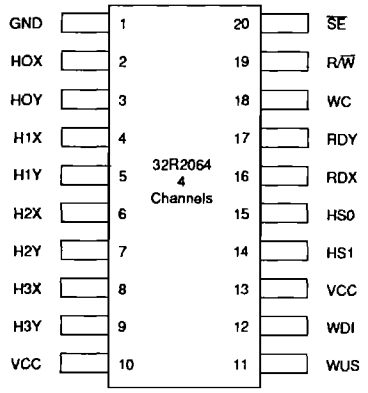
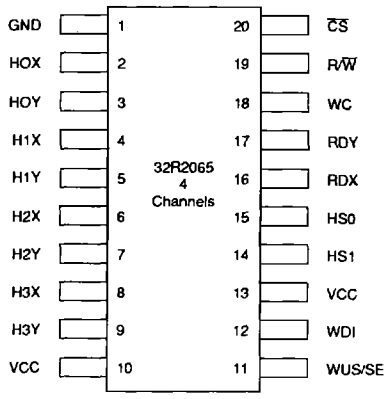
PACKAGE PIN DESIGNATIONS

(Top View)



20-LEAD SOL, VSOP



20-LEAD SOL, VSOP

Target Specification: The target specification is intended as an initial disclosure of specification goals for the product. The specifications are based on design goals, subject to change and are not guaranteed.

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