

DESCRIPTION

The SSI 32R2432R/33R/34R 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 6 or 8 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. The SSI 32R2432R/33R/34R provides the user with a controllable write-current adjustment feature. The device also offers multiple channel "servo bank write" capability to assist in servo writing operations.

The SSI 32R2432R/33R/34RR requires only a +5 V power supply and is available in a 32 VTSOP package.

FEATURES

- +5 V +/-10% supply
- Low power
 - PD = 150 mW read mode
 - PD = 1 mW idle (Max)
- High performance:
 - Read mode gain = 300,350 V/V
 - Input noise = 0.45 nV/ $\sqrt{\text{Hz}}$ (Nom)
 - Input capacitance = 6 pF (Nom)
 - Write current range = 3-20 mA
 - Nominal write current (10 mA) rise/fall time = 2.3 ns (Nom, 0.5 μH head)
 - Head voltage swing = 8 Vp-p (Nom)
- Servo bank-write capability
- Self switching damping resistance
 - 225 Ω in 32R2432R
 - 350 Ω in 32R2433R/34R
- Write unsafe detection
- Write data flip/flop (32R2434R), no flip-flop (32R2432R/33R)
- Unselected heads are at GND potential
- Bond option channel count (6 or 8) selection
- Power supply fault protection
- Head short to ground protection
- 32-Lead VTSOP package

SSI 32R2432R/33R/34R
+5 V 6,8 Channel Thin-Film
Read/Write Device

BLOCK DIAGRAM

