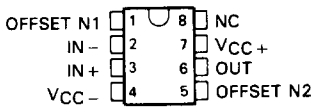
TYPES TL291, TL292, TL294
HIGH-FREQUENCY OPERATIONAL AMPLIFIERS

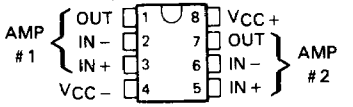
D2782, SEPTEMBER 1983

- Small-Signal Unity-Gain Bandwidth . . . 20 MHz Typ
- Noninverting Slew Rate . . . 50 V/μs Typ (Unity-Gain Follower)
- Internal Frequency Compensation
- Full-Power Bandwidth at V_{OPP} = 20 V . . . 400 kHz Typ
- Open-Loop Gain at Full-Power Bandwidth, V_{OPP} = 20 V . . . 34 dB Typ
- Output Short-Circuit Protection
- TL291 Has Offset Null Capability
- Pinout is Same as Standard General Purpose Operational Amplifiers

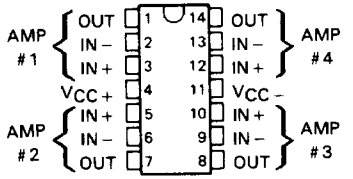
TL291
JG OR P DUAL-IN-LINE PACKAGE
(TOP VIEW)



TL292
JG OR P DUAL-IN-LINE PACKAGE
(TOP VIEW)



TL294
J OR N DUAL-IN-LINE PACKAGE
(TOP VIEW)



NC – No internal connection

description

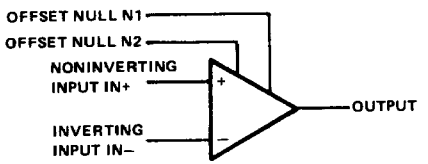
These devices are high-speed operational amplifiers designed for applications requiring wide bandwidth and a fast slew rate. These monolithic circuits incorporate new high-frequency P-N-P transistors that eliminate the need for large feed-forward capacitors required in previous moderately high-frequency designs to pass the signal around slow lateral P-N-P stages.

These operational amplifiers have a typical full-power bandwidth of 400 kilohertz for a 20-volt peak-to-peak output swing. because of the higher 20-megahertz unity-gain bandwidth, the typical open-loop gain at the 400-kilohertz full-power bandwidth is a very respectable 34 decibels.

The TL291 single-channel operational amplifier pinout includes offset nulling, which is easily accomplished by connecting a potentiometer across the offset null pins with the wiper connected to the V_{CC-} pin.

The TL291M, TL292M, and TL294M will be characterized for operation over the full military temperature range of −55°C to 125°C. The TL291C, TL292C, and TL294C will be characterized for operation from 0°C to 70°C.

symbol (each amplifier)



PRODUCT PREVIEW

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