

**FEATURES**

- Slew Rate ..... 11000V/ $\mu$ s
- Wide Bandwidth..... 400MHz
- Output Current..... 150mA
- Wide Supply Voltage.....  $\pm 3V$  to  $\pm 18V$
- Supply Current..... 5mA
- Short Circuit Product
- Low Bias Current

**APPLICATIONS**

- CRT Amplifier Drivers
- Coaxial Cable Driver

**GENERAL DESCRIPTION**

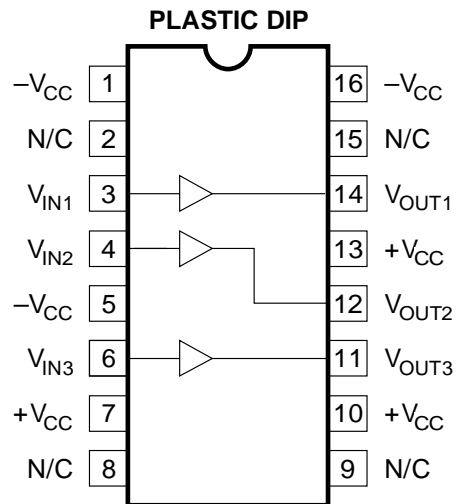
The CVA4401 is a low power, wide bandwidth triple buffer amplifier. The CVA4401 delivers a -3dB bandwidth of 400MHz, 150mA, and 11000V/ $\mu$ s while only drawing 5mA of supply current. The CVA4401 operates over a wide supply voltage range of  $\pm 5V$  to  $\pm 18V$ .

This product is an excellent choice for driving the video signal from Pre-Amp active load CRT driver.

**ORDERING INFORMATION**

Part	Package	Temperature Range
CVA4401	Plastic Dip 16 Lead	-20°C to +100°C

**PIN CONFIGURATION**



TOP VIEW

1P-05

## ABSOLUTE MAXIMUM RATINGS (Note 1)

Supply Voltage . . . . .	±20V	ESD Tolerance (Note 3) . . . . .	±2000V
Input Voltage . . . . .	±V <sub>supply</sub>	Thermal Resistance (θ <sub>JA</sub> )	
Storage Temperature Range . . . . .	-65°C to +150°C	N Package . . . . .	95°C/W
Lead Temperature		Thermal Resistance (θ <sub>JC</sub> )	
(Soldering 10 seconds) . . . . .	260°C	N Package . . . . .	50°C/W
Power Dissipation . . . . . (Note 4)		Maximum Junction Temperature . . . . .	150°C

## DC ELECTRICAL CHARACTERISTICS

The following specifications apply for Supply Voltage = ±12V, V<sub>CM</sub> = 0, R<sub>L</sub> ≥ 100KΩ and R<sub>S</sub> = 50Ω unless otherwise noted.

SYMBOL	CHARACTERISTICS	TYP	Limit (Note 5)	UNITS	CONDITIONS
A <sub>V1</sub>	Voltage Gain 1	0.99	0.96	V/V Min	R <sub>L</sub> = ∞, V <sub>IN</sub> = ±10V
A <sub>V2</sub>	Voltage Gain 2	0.95	0.90		R <sub>L</sub> = 100Ω, V <sub>IN</sub> = ±10V
V <sub>OS</sub>	Offset Voltage	10	50	mV Max	R <sub>L</sub> = ∞
I <sub>B</sub>	Input Bias Current	1	25	μA Max	R <sub>L</sub> = ∞
R <sub>IN</sub>	Input Resistance	0.5		MΩ	R <sub>L</sub> = 100Ω
C <sub>IN</sub>	Input Capacitance	3.5		pF	
R <sub>O</sub>	Output Resistance	3	10	Ω Max	R <sub>L</sub> = 100Ω, V <sub>IN</sub> = ±2V
I <sub>S</sub>	Supply Current	5	7.5	mA Max	R <sub>L</sub> = ∞
V <sub>O</sub>	Output Swing	8	8	±V Min	R <sub>L</sub> = 100Ω, V <sub>IN</sub> = ±10V
I <sub>OUT</sub>	Output Current	150	100	mA	V <sub>IN</sub> = 10V

## AC ELECTRICAL CHARACTERISTICS

The following specifications apply for Supply Voltage = ±12V, V<sub>CM</sub> = 0, R<sub>L</sub> ≥ 100KΩ and R<sub>S</sub> = 50Ω unless otherwise noted.

SYMBOL	CHARACTERISTICS	TYP	Limit (Note 5)	UNITS	CONDITIONS
SR <sub>1</sub>	Slew Rate 1	11000	8000	V/μs	V <sub>IN</sub> = ±10V, R <sub>L</sub> = 100Ω (Note 2)
SS <sub>BW</sub>	Small Signal Bandwidth	400	200	MHz	V <sub>IN</sub> = ±100mV <sub>PP</sub> , R <sub>L</sub> = 100Ω C <sub>L</sub> ≤ 10pF
P <sub>BW</sub>	Power Bandwidth	100			V <sub>IN</sub> = ±4V, R <sub>L</sub> = 100Ω C <sub>L</sub> ≤ 10pF
t <sub>r</sub> , t <sub>f</sub>	Rise Time Fall Time	1.2	1.7	ns	R <sub>L</sub> = 100Ω, C <sub>L</sub> ≤ 10pF V <sub>IN</sub> = 0.5V
t <sub>pd</sub>	Propagation Delay Time	2.0		ns	R <sub>L</sub> = 100Ω, C <sub>L</sub> ≤ 10pF V <sub>IN</sub> = 0.5V

**Note 1:** Absolute Maximum Ratings indicate limits beyond which damage to the device may occur. DC and AC electrical specifications do not apply when operating the device beyond its rated operating conditions.

**Note 2:** Slew rate is measured with 50Ω source impedance at 25°C. Slew rate is measured between V<sub>O</sub> = +5V and -5V.

**Note 3:** The test circuit consists of the human body model of 120pF in series with 1500Ω.

**Note 4:** The maximum power dissipation is a function of T<sub>J(max)</sub>, θ<sub>JA</sub> and T<sub>A</sub>. The maximum allowable power dissipation at any ambient temperature is P<sub>D</sub> = (T<sub>J(max)</sub> - T<sub>A</sub>)/θ<sub>JA</sub>.

**Note 5:** Limits are guaranteed by testing, correlation or periodic characterization.