

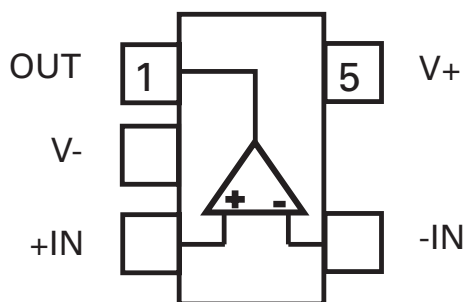
## Video Amplifier

### DEVICE DESCRIPTION

The ZXFV202 is a single high speed amplifier designed for video and other high speed applications. Packaged in a small SOT23-5 it is ideally suited to applications where space is at a premium. In applications where cross talk is critical this part provides better isolation than dual or quad devices.

It features low differential gain and phase performance. High output drive capability compliments this part for use in video applications.

### CONNECTION DIAGRAM



### FEATURES AND BENEFITS

- -3dB bandwidth 300MHz
- Slew rate 400V/ $\mu$ s
- Differential gain 0.01%
- Differential phase 0.01°
- Output current 40mA
- Characterised up to 400pF load
- $\pm$ 5 Volt supply
- Supply current 7mA
- SOT23-5 package

### APPLICATIONS

- Video gain stages
- CCTV buffer
- Video distribution
- RGB buffering
- High frequency instrumentation
- Cable Driving
- Radar Imaging
- Medical Imaging

### ORDERING INFORMATION

PART NUMBER	CONTAINER	INCREMENT
ZXFV202E5TA	Reel 7"	3000
ZXFV202E5TC	Reel 13"	10000

## ABSOLUTE MAXIMUM RATINGS

Supply Voltage	±5.25V
Inputs to ground	
Outputs to ground	
Operating Temperature Range	-40°C to 85°C Storage -65°C to 150°C
Continuous Power Dissipation	250mW
Thermal resistance	250°C/W

The power dissipation of the device including the loads must be designed to keep  $t_j$  below 150°C

## ELECTRICAL CHARACTERISTICS

Test Conditions:  $V_{cc}=\pm 5V$ ,  $T_{amb}= 25^\circ C$  unless otherwise stated.  $R_f = 1k\Omega$ ,  $R_L = 150\Omega$ ,  $C_L \leq 10pF$

Parameter	Conditions	Test	Min.	Typical	Max.	Units
Supply Voltage $V_+$			4.75	5	5.25	V
Supply Voltage $V_-$			-5.25	-5	-4.75	V
Supply current		P		7		mA
Input Common mode Voltage		P		±3		V
Input offset voltage		P	-10	±3	10	mV
Input bias current non inverting input		P		+10 -4.5		µA µA
Input Resistance		P	3		7	MΩ
Output voltage swing		P		±3		V
Output drive current		P			40	mA
Positive PSRR				-55		dB
Negative PSRR				-57		dB
Bandwidth	$A_v = +1$	C		300		MHz
Slew rate	$A_v = +1$ $A_v = +2$ $A_v = +10$			400 400		V/µs
Rise time	$V_{out} = \pm 1V$ , 10% - 90%			4.0		ns
Fall time	$V_{out} = \pm 1V$ , 10% - 90%			3.2		ns
Propagation delay	$V_{out} = +2V$ , 50%			4		ns
Open loop gain				53		dB
Differential Gain	$R_L = 150\Omega$			0.01		%
Differential phase	$R_L = 150\Omega$			0.01		deg

Test: P=Production tested, C= Characterised