ADVANCED INFORMATION

ZXFV202

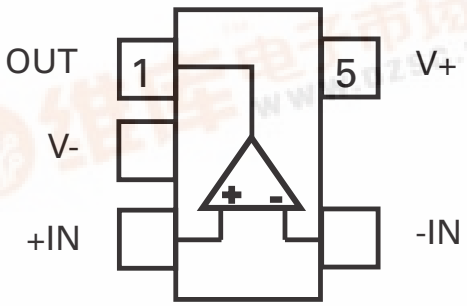
Video Amplifier

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/µs
- Differential gain 0.01%
- Differential phase 0.01°
- Output current 40mA
- Characterised up to 400pF load
- ±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: Vcc=±5V, Tamb= 25C unless otherwise stated. Rf = 1kΩ, R_L = 150Ω, C_L<= 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	Av= +1	C		300		MHz
Slew rate	Av= +1 Av = +2 Av = +10			400 400		V/µs
Rise time	Vout = ±1 V, 10% - 90%			4.0		ns
Fall time	Vout = ±1V, 10% - 90%			3.2		ns
Propagation delay	Vout = +2 V, 50%			4		ns
Open loop gain				53		dB
Differential Gain	RL = 150Ω			0.01		%
Differential phase	RL = 150Ω			0.01		deg

Test: P=Production tested, C= Characterised

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