

## Audio Amp Headphone 2-CH Stereo 0.025W Class-AB 16-Pin WQFN EP T/R

<b>Manufacturer:</b>	<a href="#">Texas Instruments, Inc</a>	<input type="text" value="TPA6132A2RTER Image"/>
<b>Package/Case:</b>	QFN	Images are for reference only
<b>Product Type:</b>	Amplifier ICs	<input type="button" value="Inquiry"/>
<b>RoHS:</b>	RoHS Compliant/Lead free 	
<b>Lifecycle:</b>	Active	

### General Description

The TPA6132A2 (sometimes referred to as TPA6132) is a DirectPath™ stereo headphone amplifier that eliminates the need for external dc-blocking output capacitors. Differential stereo inputs and built-in resistors set the device gain, further reducing external component count. Gain is selectable at -6 dB, 0 dB, 3 dB or 6 dB. The amplifier drives 25 mW into 16  $\Omega$  speakers from a single 2.3 V supply. The TPA6132A2 (TPA6132) provides a constant maximum output power independent of the supply voltage, thus facilitating the design for prevention of acoustic shock.

The TPA6132A2 features fully differential inputs to reduce system noise pickup between the audio source and the headphone amplifier. The high power supply noise rejection performance and differential architecture provides increased RF noise immunity. For single-ended input signals, connect INL+ and INR+ to ground.

The device has built-in pop suppression circuitry to completely eliminate disturbing pop noise during turn-on and turn-off. The amplifier outputs have short-circuit and thermal-overload protection along with  $\pm 8$  kV HBM ESD protection, simplifying end equipment compliance to the IEC61000-4-2 ESD standard. The TPA6132A2 operates from a single 2.3 V to 5.5 V supply with 2.1 mA of typical supply current. Shutdown mode reduces supply current to less than 1  $\mu$ A.

## Key Features

Patented DirectPath™ Technology Eliminates Need for DC-Blocking Capacitors

Outputs Biased at 0 V

Excellent Low Frequency Fidelity

Active Click and Pop Suppression

2.1 mA Typical Supply Current

Fully Differential or Single-Ended Inputs

Built-In Resistors Reduces Component Count

Improves System Noise Performance

Constant Maximum Output Power from 2.3 V to 5.5 V Supply

Simplifies Design to Prevent Acoustic Shock

Improved RF Noise Immunity

Microsoft

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High Power Supply Noise Rejection

100 dB PSRR at 217 Hz

90 dB PSRR at 10 kHz

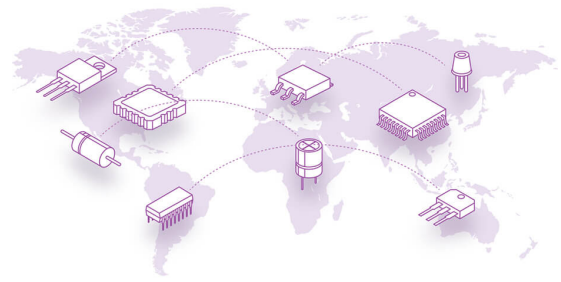
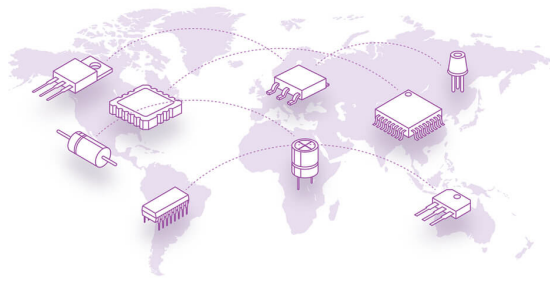
Wide Power Supply Range: 2.3 V to 5.5 V

Gain Settings: -6 dB, 0 dB, 3 dB, and 6 dB

Short-Circuit and Thermal-Overload Protection

Small Package Available

16-Pin, 3 mm × 3 mm Thin QFN



## Recommended For You

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### **TPA3125D2N**

Texas Instruments, Inc

DIP20

### **TPA6111A2DR**

Texas Instruments, Inc

SOP8

### **TPA2012D2RTJR**

Texas Instruments, Inc

QFN20

### **TPA2013D1RGPR**

Texas Instruments, Inc

QFN20

### **TPA2010D1YZFR**

Texas Instruments, Inc

DSBGA9

### **TPA3118D2QDAPRQ1**

Texas Instruments, Inc

HTSSOP-32

### **TPA6211A1TDGNRQ1**

Texas Instruments, Inc

MSOP8

### **TAS5414CTPHDRQ1**

Texas Instruments, Inc

HTQFP-64

### **PCMI681TPWPRQ1**

Texas Instruments, Inc

HTSSOP28

### **TPA3131D2RHBR**

Texas Instruments, Inc

VQFN32

### **TPA3100D2PHP**

Texas Instruments, Inc

QFP

### **TPA3244DDWR**

Texas Instruments, Inc

HTSSOP-44

### **TPA6017A2PWP**

Texas Instruments, Inc

HTSSOP20

### **TPA4861D**

Texas Instruments, Inc

SOP8

### **TPA6120A2DWPR**

Texas Instruments, Inc

SOP