

Transistors Bipolar - BJT Low Noise Matched Dual NPN Transistor

Manufacturers	<a href="#">Analog Devices, Inc</a>
Package/Case	SOIC-8
Product Type	Transistors
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for SSM2212RZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The SSM2212 is a dual, NPN-matched transistor pair that is specifically designed to meet the requirements of ultralow noise audio systems.

With its extremely low input base spreading resistance ( $r_{bb'}$  is typically  $28 \Omega$ ) and high current gain ( $h_{FE}$  typically exceeds 600 at >

Excellent matching of the current gain ( $\Delta h_{FE}$ ) to approximately 0.5% and low VOS of less than  $10 \mu V$  typical make the SSM2212 ideal for symmetrically balanced designs, which reduce high-order amplifier harmonic distortion.

Stability of the matching parameters is guaranteed by protection diodes across the base-emitter junction. These diodes prevent degradation of beta and matching characteristics due to reverse biasing of the base-emitter junction.

The SSM2212 is also an ideal choice for accurate and reliable current biasing and mirroring circuits. Furthermore, because the accuracy of a current mirror degrades exponentially with mismatches of  $V_{BE}$  between transistor pairs, the low VOS of the SSM2212 does not need offset trimming in most circuit applications.

The SSM2212 SOIC performance and characteristics are guaranteed over the extended temperature range of  $-40^{\circ}C$  to  $+85^{\circ}C$ .

The SSM2212 is available in 8-lead SOIC and 16-lead LFCSP packages.

## Features

Very low voltage noise:  $1\text{nV}/\sqrt{\text{Hz}}$  max @ 100Hz

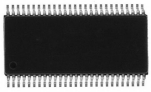
Excellent current gain match: 0.5%

Low offset voltage (VOS): 200  $\mu\text{V}$  maximum (SOIC)

Outstanding offset voltage drift: 0.03  $\mu\text{V}/^\circ$

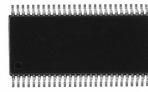
High gain bandwidth product: 200 MHz

## Related Products



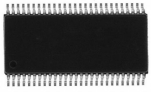
### [SSM2220S](#)

Analog Devices, Inc  
8-SOIC (0.154, 3.90mm Width)



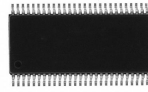
### [SSM2220SZ](#)

Analog Devices, Inc  
8-SOIC (0.154, 3.90mm Width)



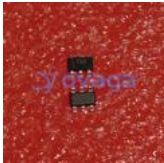
### [SSM2212RZ-RL](#)

Analog Devices, Inc  
8-SOIC (0.154, 3.90mm Width)



### [SSM2212RZ-R7](#)

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8-SOIC (0.154, 3.90mm Width)



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SOT-23-6



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