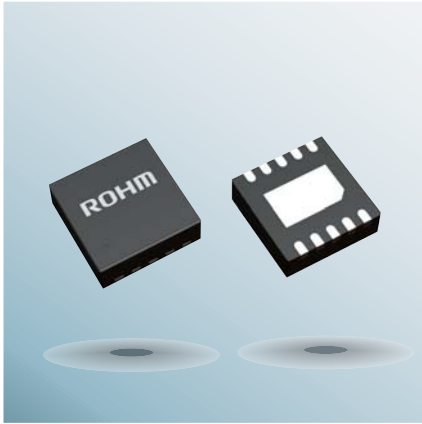


# Low Voltage Headphone Amp

## BU7150NUV



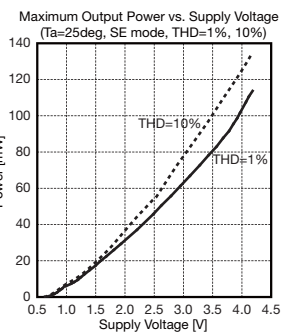
## Low voltage single-cell battery drive and low power consumption prolongs battery life

### Product Outline

A compact design is one of the main determining factors when choosing a portable audio player, IC recorder, electronic dictionary, or other mobile device. ROHM's BU7150NUV headphone amp is offered in a compact package and enables operation from a single battery cell (0.93V), contributing to increased miniaturization.

### Wide operating voltage range (0.93V to 3.5V) ensures support for single-/dual-cell batteries

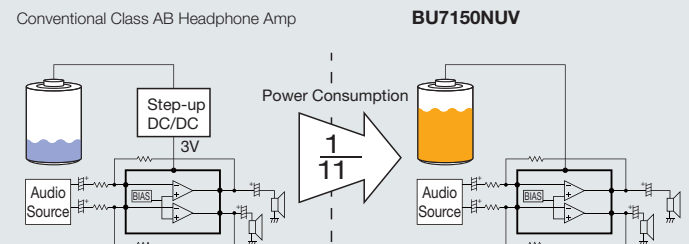
The wide operating voltage range of the BU7150NUV headphone amp (0.93V to 3.5V) enables compatibility with both single- and dual-cell battery applications, while direct BTL connection capability allows it to be used as a large output monaural speaker amp. In addition, an automatic startup sequence control circuit, power ON reset circuit, and clip/pop noise reduction circuit are built in, resulting in superior performance.



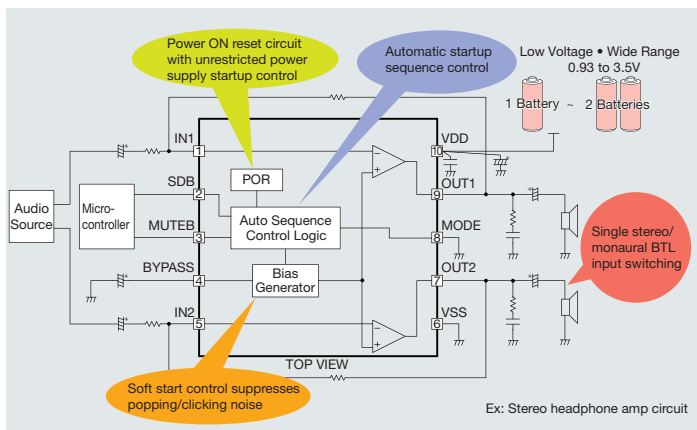
### Low 1mA current consumption and low voltage drive prolongs battery life

Conventional headphone amps require a step-up circuit when powered by a single battery cell, resulting in greater power consumption and loss from the step-up circuit. In contrast, the BU7150NUV features a wide operating voltage range - eliminating the need for a step-up circuit - as well as low 1mA current consumption, ensuring longer operating times.

### Power Consumption Comparison (Single-Cell Battery Drive)



	Conventional Class AB Amp (BH3544F)	BU7150NUV
Supply Voltage (typ)	3V	1.5V
No-Signal Current	5.0mA	1.0mA
Power Consumption	15.0mW	1.5mW
DC/DC Efficiency	90%	—
Total Power Consumption	16.7mW	1.5mW



### Specifications (Typical Values)

Part No.	Supply Voltage (V)	No-Signal Circuit Current (mA)	Max. Output Power (mW)		Harmonic Distortion (%)		Output Noise Voltage (μVrms)	Package
			RL=8Ω BTL	RL=16Ω SE	RL=8Ω BTL	RL=16Ω SE		
BU7150NUV	0.93 to 3.5	1.0	85 (0.1%)	14 (0.1%)	0.2 (25mW)	0.1 (5mW)	10	VSON010V3030 3mm×3mm, h=1.0mm max

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