Ceramic Speaker Driver for Ultra-Thin, Feature-Rich Handsets

National Semiconductor Corporation introduced a single-chip Boomer audio power amplifier that delivers the industry's highest voltage for driving ceramic speakers used in a wide range of 3V portable devices, according to the company. The LM48555 [1] drives ceramic speakers in cell phones, smartphones, notebook computers and other small handheld devices. With a ceramic speaker load equivalent to 1 uF + 20?, the device provides a voltage drive of 15.7V peak-to-peak with less than 1 percent total harmonic distortion plus noise (THD+N). In addition, its 12-bump micro SMD package has a footprint of 1.5 mm × 2.0 mm, making it possible for manufacturers to create ultra-thin, feature-rich handsets. The device delivers 15.7V peak-to-peak from a 3V DC power supply, and typically offers low quiescent current of 7.5 mA from a 5V supply. It can achieve additional battery savings with its low power shutdown mode, and its differential inputs improve noise rejection. Power supply rejection ratio (PSRR) is typically 80 dB at 217 Hz, and it does not require bootstrap capacitors or snubber circuits. The amplifier's advanced "pop-and-click" circuitry eliminates noise that typically occurs during turn-on and turn-off transitions. The device's integrated boost regulator features a soft start function that minimizes transient current during power-up. The LM48555, available in a 12-bump thin micro SMD package, is priced at $1.95 each in 1,000-unit quantities.
National Semiconductor Corporation
800-272-9959, www.national.com [2]

Click here for more information: http://www.national.com/pf/LM/LM48555.html [1]

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