



Product Overview

LC898301XA: Linear Vibrator Driver

For complete documentation, see the data sheet

Product Description

The LC898301XA is a Linear Vibrator Driver IC dedicated to haptic feedback actuator and vibrator employed in mobile equipment. Due to the product superior technology, the drive frequency is automatically adjusted to the resonance frequency of the linear vibrator without the use of other external parts. As a result of this very effective drive, the vibration is as powerful as possible using very limited amount of energy compared to classical solutions. The start time and brake time are fully configurable through the I²C setting. Moreover, an automatic braking function has been implemented allowing to optimize the braking time. Finally, a self test mode allows to detect various possible functional defaults during assembly.

Features

- Automatic adjustment to the resonance frequency for LRA (150Hz to 385Hz)
- Programmable or Automatic braking
- Initial drive frequency adjustment function
- Adjustable Drive voltage through I²C IF setting
- EN IF or PWM IF driving mode available by automatic detection
- Support various drive pattern through I2C (1.8V IF)
- Low power consumption thanks to the highly effective drive and the low power driving mode
- Low driving noise (EMI, Audible band)
- VBAT compliant
- Thermal shutdown protection

Applications

- Linear Vibrator (Vibration and haptics)

End Products

- Mobile Phone
- Portable Game
- Mobile equipment with haptics function

Part Electrical Specifications

Product	Compliance	Status	Type	V _M Min (V)	V _M Max (V)	V _{CC} Min (V)	V _{CC} Max (V)	I _O Max (A)	I _O Peak Max (A)	Step Resolution	Control Type	Feedback Method	Current Sense	Regulator Output	Fault Detection	Flyback Protection	R _{DS(on)} Typ (Ω)	Package Type
LC898301XA-MH	Pb-free Halide free	Active	Drivers	3	5.5	3	5.5	0.2			I2C	Back EMF /Sensorless	none		Open-Short Thermal		3.5	WLCSP-8

For more information please contact your local sales support at www.onsemi.com

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