

ISL24837

Highly Integrated Programmable I²C TFT-LCD Reference Voltage Generator

FN6842
 Rev 1.00
 September 1, 2010

The ISL24837 is an 8-Channel programmable reference voltage generator with band gap trimmed reference, 4-Channel programmable reference voltages of level shifter with 1-Channel Op amp, and a digitally-controlled V_{COM} Calibrator. The reference voltage of ISL24837 is generated by gain of internal band gap voltage with external resistors. V_{COM} calibrator is the sink-current output that attaches to an external voltage divider. The desired V_{COM} setting is able to be adjusted by I²C interface. Two I²C selectable banks of 8-channels enable fast switching between 2 different gamma curves stored in internal EEPROM.

ISL24837 is available in a 32 Ld QFN package and is specified for operation over the -40°C to +85°C temperature range.

Ordering Information

PART NUMBER (Note 2)	PART MARKING	PACKAGE (Pb-free)	PKG. DWG. #
ISL24837IRZ	ISL24837 IRZ	32 Ld QFN	L32.5x6C
ISL24837IRZ-T13 (Note 1)	ISL24837 IRZ	32 Ld QFN	L32.5x6C

NOTES:

1. Please refer to [TB347](#) for details on reel specifications.
2. These Intersil Pb-free plastic packaged products employ special Pb-free material sets, molding compounds/die attach materials, and 100% matte tin plate plus anneal (e3 termination finish, which is RoHS compliant and compatible with both SnPb and Pb-free soldering operations). Intersil Pb-free products are MSL classified at Pb-free peak reflow temperatures that meet or exceed the Pb-free requirements of IPC/JEDEC J STD-020.

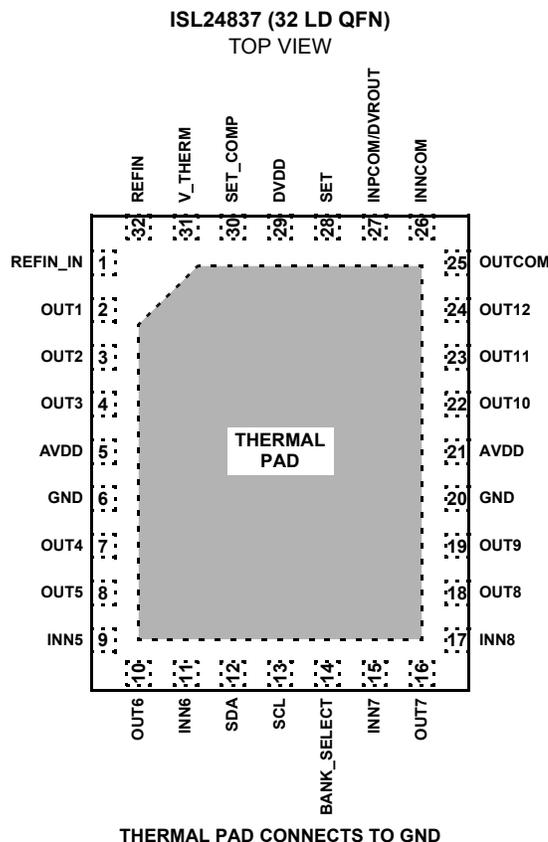
Features

- 8 Programmable Voltages with Band Gap trimmed Reference
- 4-Channel Programmable Amps with feedback inputs for Level Shifter Reference Voltages
- Integrated Programmable V_{COM} Calibrator
- 1 V_{COM} Op Amp
- 2 Banks of EEPROM Storage
 - 260 bits of memory size
 - rewriteable 300 times
- 15mV Resolution (10-bits)
- Analog Supply: 12V to 18V @ 15mA (Unloaded)
- Digital Supply: 2.4V to 3.3V @ 1mA (Unloaded)
- I²C Interface
- Pb-free (RoHS Compliant)

Applications

- TFT-LCD Column Driver Reference Generator
- General-Purpose Reference Voltage Generators

Pinout



© Copyright Intersil Americas LLC 2009-2010. All Rights Reserved.
All trademarks and registered trademarks are the property of their respective owners.

For additional products, see www.intersil.com/en/products.html

Intersil products are manufactured, assembled and tested utilizing ISO9001 quality systems as noted in the quality certifications found at www.intersil.com/en/support/qualandreliability.html

Intersil products are sold by description only. Intersil may modify the circuit design and/or specifications of products at any time without notice, provided that such modification does not, in Intersil's sole judgment, affect the form, fit or function of the product. Accordingly, the reader is cautioned to verify that datasheets are current before placing orders. Information furnished by Intersil is believed to be accurate and reliable. However, no responsibility is assumed by Intersil or its subsidiaries for its use; nor for any infringements of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of Intersil or its subsidiaries.

For information regarding Intersil Corporation and its products, see www.intersil.com