NOT RECOMMENDED FOR NEW DESIGNS
RECOMMENDED REPLACEMENT PART
ISL24837A

ISL24837

Highly Integrated Programmable I^2C 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 I^2C interface. Two I^2C 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

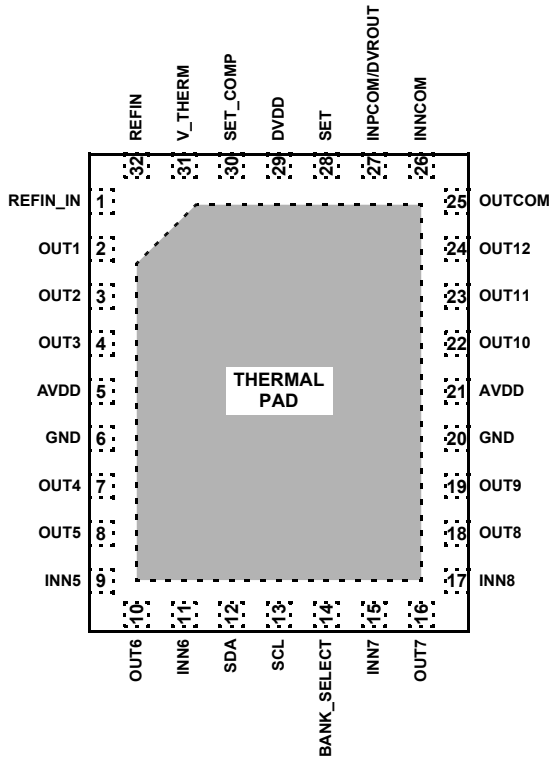
- 8 Programmable Voltages with Band Gap trimmed Reference
- 4-Channel Programmable Amps with feedback inputs for Level Shifter Reference Voltages
- Integrated Programmable V_{COM} Calibrator
- 1 V_{COM} Op Amp
- 2 Banks of EEPROM Storage
  - 260 bits of memory size
  - rewriteable 300 times
- 15mV Resolution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

Applications

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

Pinout

ISL24837 (32 LD QFN)
TOP VIEW



THERMAL PAD CONNECTS TO GND

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