



Product Overview

CAT2300: SENSEFET® Current Monitor for 0.9 V - 1.5 V Bus

For complete documentation, see the [data sheet](#)

Product Description

CAT2300 is a Controller for SENSEFET® MOSFET current monitoring in high-side switch applications.

CAT2300 provides current mirroring and ON/OFF control for SENSEFET MOSFETs. Exact control and matching of the Sense output of the SENSEFET with the Kelvin voltage insures accurate current monitoring over many decades of current.

Designed for use with NTMFS4833NST1G, NTMFS4854NST1G or similar SENSEFET MOSFETs from ON Semiconductor, CAT2300 is the single chip alternative to discrete circuits for monitoring and controlling 0.9 V - 1.5 V power busses. When teamed with NTMF4834NS, CAT2300 will track currents up to 25 A and resolve currents below 100 mA.

CAT2300 provides logic level ON/OFF control of the power MOSFET and its own internal circuitry, reducing power consumption to virtually zero milliwatts.

Packaged in a space saving low profile 2 x 3 mm TDFN, CAT2300 operates over the full industrial temperature range of -40 °C to +85 °C.

Features

- Sense Current Mirroring to 70 mA (equal to 25 A flowing in the power bus)
- Precision Current Measurement of 0.9 V - 1.5 V Power Supply Rails
- ON/OFF Power FET Control with Soft-start
- User Adjustable Current to Voltage Conversion Ratio
- 150 μ V Typical Matching between Kelvin and Sense Leads
- Less than 1 μ A Current Consumption in Shutdown Mode
- This Device is Pb-Free, Halogen Free/BFR Free and RoHS Compliant

Benefits

- Accurate measurement of load current.

Applications

- Backplane Bus Control
- Power Distribution

End Products

- Portable Computers

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

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