



## New Products Introduction

June 2018

### TLS1 – New family for Automotive sensor supply

TLS102B0MB / TLS105B0MB



The TLS10xB0 is a monolithic integrated low-dropout voltage tracking regulator. It provides an output voltage with 0,01% accuracy to respect of the ref voltage in a small SCT595-5 package.

The TLS10xB0 is designed to supply off-board systems, for example, sensors in powertrain management systems under the severe conditions of automotive applications. Therefore, the TLS10xB0 is equipped with additional protection functions against reverse polarity and short circuit to GND and battery. The TLS105M0BM is able to drive loads up to 50 mA and TLS102M0BM is able to drive loads up to 20 mA

#### Features

- > Very tight output tracking tolerance to reference. Maximum 5mV
- > Output voltage adjustable down to 2.0 V
- > Very low dropout voltage of typ. 250 mV at 50 mA
- > Very low current consumption of typ. 3  $\mu$ A in off mode
- > Only a small 1  $\mu$ F ceramic capacitor is required due to the improved control loop of the device which allows for an extreme fast regulation providing very good stability characteristics.

Internal protections make the device robust against immediate damage:

- > Short circuit protected output (to GND and to battery)
- > Reverse polarity protected input
- > Over temperature protection
- > Output current limitation

#### Competitive advantage

TLS10xB0MB devices have a best in class dynamic response to load and line transients. It provides full protection for the ECU and the sensors when those are placed off board, Short circuit protected output (to GND and to battery), reverse polarity protected input, over temperature protection and output current limitation.

#### Benefits

- > Reliable protection for ECU/sensor
- > Easy and accurate voltage replication
- > High flexibility/scalability
- > Lower design effort → design cost saving
- > Pin to pin compatible to TLE4250-2G

#### Qualification

- > Automotive

#### Target applications

The features make the TLS10xB0MB voltage tracking regulators perfectly suitable as automotive sensor supply and as high precision supply for off-board loads.

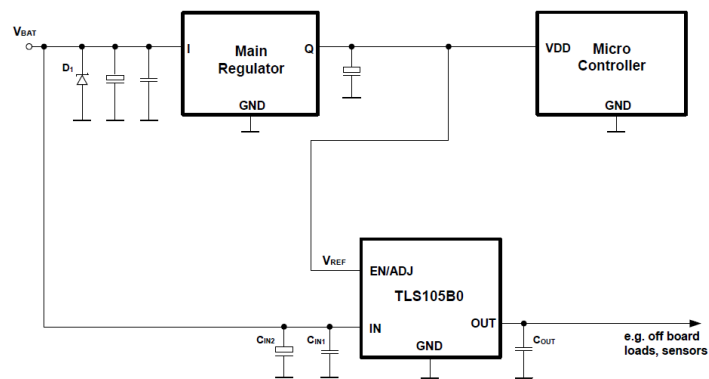
Application examples:

- > Protected off board sensor supply in HVAC, EMS, TCU, EPS, Braking, Transmission, Transfer case.
- > Heat/Voltage distribution
- >  $\mu$ C controller supply

Block diagram

Products collaterals / Online support

- > Product [presentation](#)
- > Product [brief](#)



Product overview incl. data sheet link

OPN	SP Number	Package
<a href="#">TLS102B0MBHTSA1</a>	SP001649012	PG-SCT595-5
<a href="#">TLS105B0MBHTSA1</a>	SP001588610	PG-SCT595-5