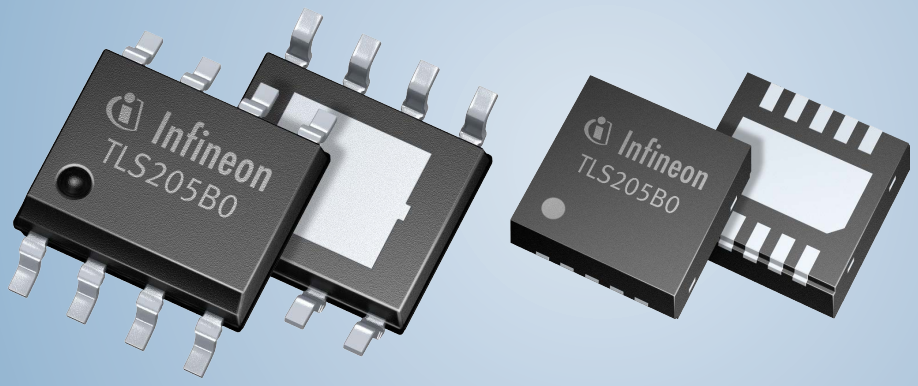


Product Brief

TLS205B0 3.3 & 5V Version

Linear Post Regulator

Linear Post Regulators

The TLS205B0 is a micro power, low noise, low dropout voltage regulator. The device is capable of supplying an output current of 500mA with a dropout voltage of 320mV. Designed for use in battery-powered systems, the low quiescent current of 30µA (I_Q = 0mA) makes it an ideal choice.

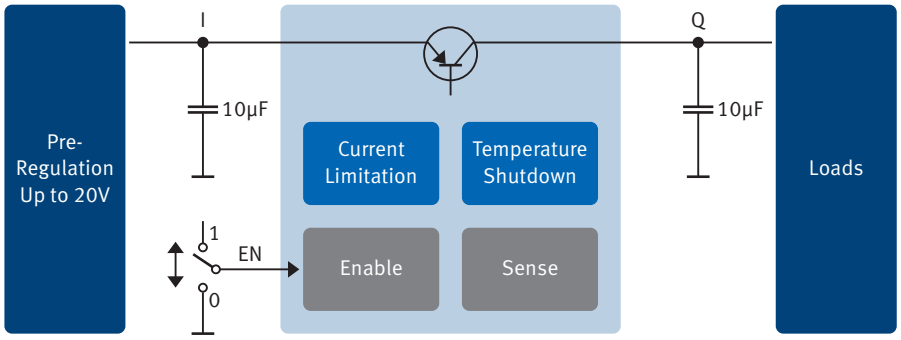
A key feature of the TLS205B0 is its low output noise. By adding an external 10nF bypass capacitor, output noise values down to 30µV_{RMS} can be reached. The TLS205B0 voltage regulator is stable with output capacitors as small as 3.3µF. Small ceramic capacitors can be used without the series resistance required by many other regulators.

Internal protection circuitry includes reverse battery protection, current limiting and reverse current protection. The TLS205B0 comes as fixed output voltages 3.3V, 5.0V as well as adjustable device with a 1.22V reference voltage. It is available in a PG-DSO-8 exposed pad and as well as in a PG-TSON-10 exposed pad package.

Applications

- Infotainment, cluster & camera
- Post regulation after DC/DC converter
- Replacement of:
  - Linear Technologies LT1763

Application Schematic



Key Features

- Enable
- Output voltage: 3.3V & 5V
- Input current: 500mA
- Low current consumption: 30µA (I_Q = 0mA)
- Drop voltage typ.: 320mV @ 500mA

Key Benefits

- Cost optimized ceramic output capacitance → 3.3µF
- Suitable for cranking → 2.3V input
- Power saving with enable feature

Enable

RoHS

AEC Qualified

www.infineon.com

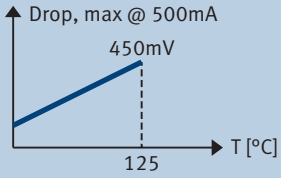
TLS205B0 3.3 & 5V Version

Linear Post Regulator

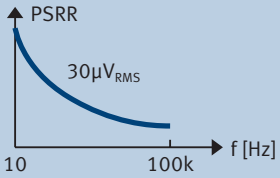
TLS205B0 3.3 & 5V Overview

Key Features

Low Drop Voltage



Low Noise



Automotive Qualification

AEC Qualified

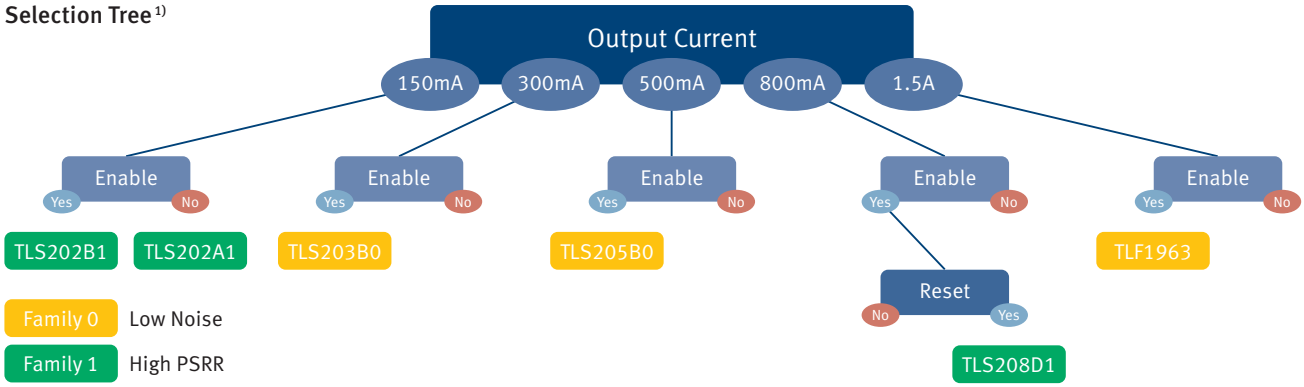
Key Benefits

Suitable for very low cranking combined with primary regulation

Suitable for some ADAS radar applications

Design for harsh automotive environment

Selection Tree [1)]



1) None contractual product proposal: for more information on product family contact sale relations

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