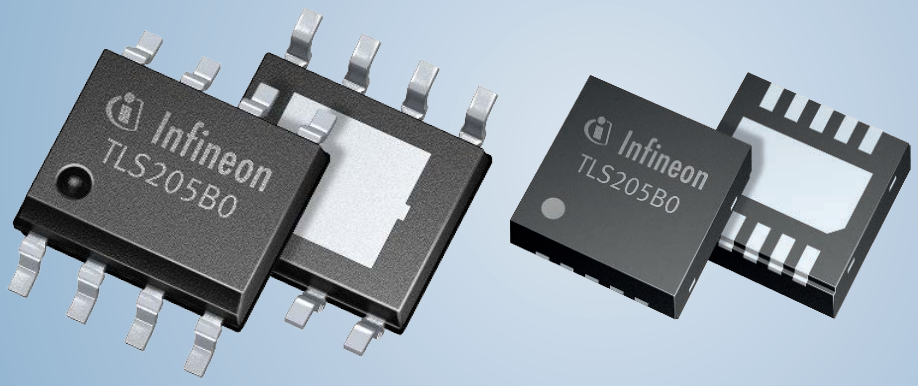


Product Brief

TLS205B0 Adjustable 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.

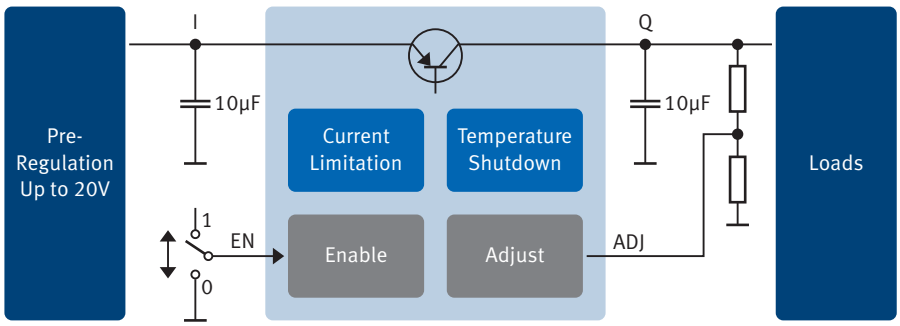
A key feature of the TLS205B0 is its low output noise. By adding an external 10nF bypass capacitor, output noise values down to 24µV_{RMS} can be reached. The TLS205B0 voltage regulator is stable with output capacitors as small as 3.3µF. Small ceramic capacitors can be used without the series resistance 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: ADJ
- 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

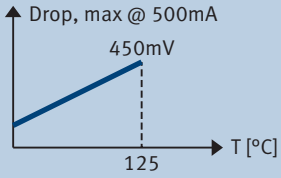
TLS205B0 Adjustable Version

Linear Post Regulator

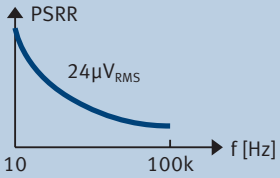
TLS205B0 Adjustable Overview

Key Features

Low Drop Voltage



Low Noise



Automotive Qualification

AEC Qualified

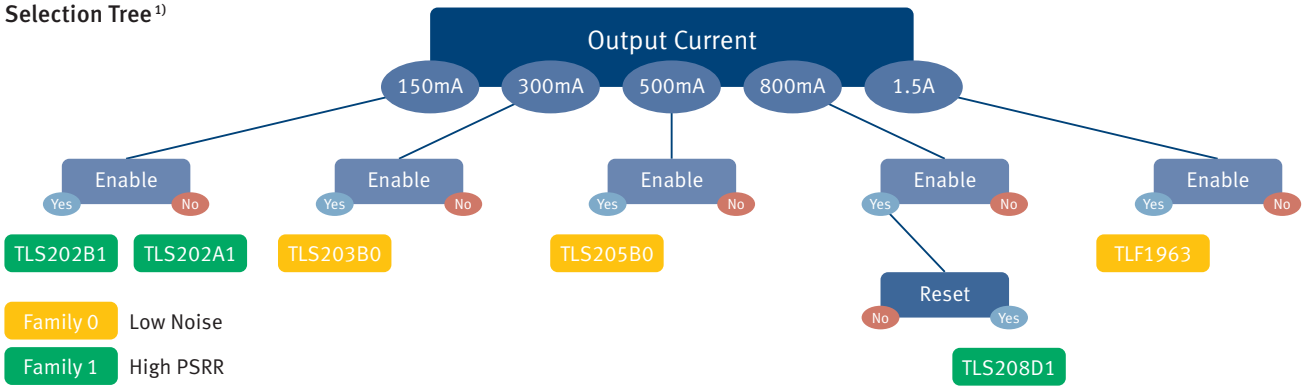
Key Benefits

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

Published by
Infineon Technologies AG
85579 Neubiberg, Germany

Visit us:
www.infineon.com

Order Number: B124-H9890-X-X-7600
Date: 02 / 2014

Attention please!
The information given in this document shall in no event be regarded as a guarantee of conditions or characteristics ("Beschaffenheitsgarantie"). With respect to any examples or hints given herein, any typical values stated herein and/or any information regarding the application of the device, Infineon Technologies hereby disclaims any and all warranties and liabilities of any kind, including without limitation warranties of non-infringement of intellectual property rights of any third party.

Information
For further information on technology, delivery terms and conditions and prices please contact your nearest Infineon Technologies Office (www.infineon.com).

Warnings
Due to technical requirements components may contain dangerous substances. For information on the types in question please contact your nearest Infineon Technologies Office. Infineon Technologies Components may only be used in life-support devices or systems with the express written approval of Infineon Technologies, if a failure of such components can reasonably be expected to cause the failure of that life-support device or system, or to affect the safety or effectiveness of that device or system. Life support devices or systems are intended to be implanted in the human body, or to support and/or maintain and sustain and/or protect human life. If they fail, it is reasonable to assume that the health of the user or other persons may be endangered.