



Product Brief

TLS820F0

Linear High Performance Voltage Regulator



TLS820F0 is a high performance voltage regulator in PG-SSOP-14. With wide input voltage range (3V to 40V) and very low quiescent of only 40µA, this regulator is perfectly suitable for automotive systems connected permanently to battery. TLS820F0 series is available with 5V or 3.3V versions with 2% accuracy and maximum output current up to 200mA.

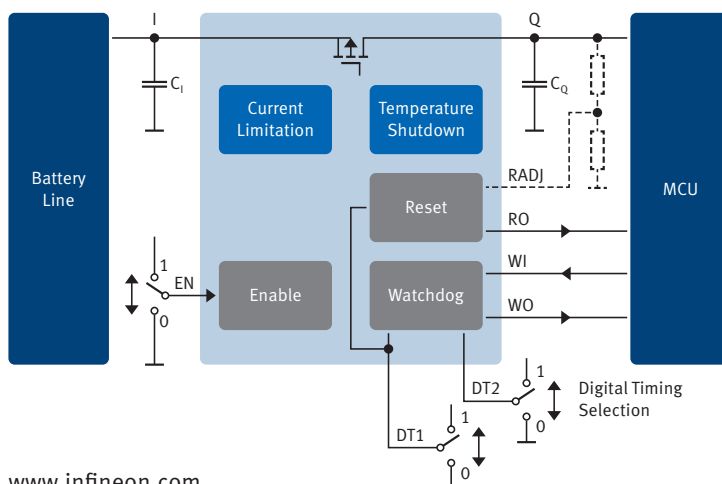
Its new loop concept combines fast regulation and very good stability requiring only one small ceramic output capacitor of 1µF.

TLS820F0 has a very low dropout voltage of only typ. 70mV and an extended input operating range down to 3.0V, making it suitable to supply automotive systems during cranking condition. Its internal protection features prevent the device against failures like output short circuit to GND, over-load and over-temperatures.

Applications

- Automotive general ECUs
 - Small ECUs where no SBC/DCDC is used
 - 2nd supply in ECU (EOK.g. for CAN)
- Dashboard, clusters, climate control, fuel pump & ADAS
- Cars & 2-wheelers

Application Schematic



Key Features

- Enable, reset & watchdog
- Output voltage: 3.3V & 5.0V
- Output current: 200mA
- Low current consumption: 40µA
- Drop voltage: 70mV @ 100mA

Key Benefits

- Excellent transient robustness → lower input filtering cost
- Cost optimized ceramic output capacitance → 1µF
- Suitable for cranking → 3.0V input & very low dropout
- Power saving for battery with low quiescent current



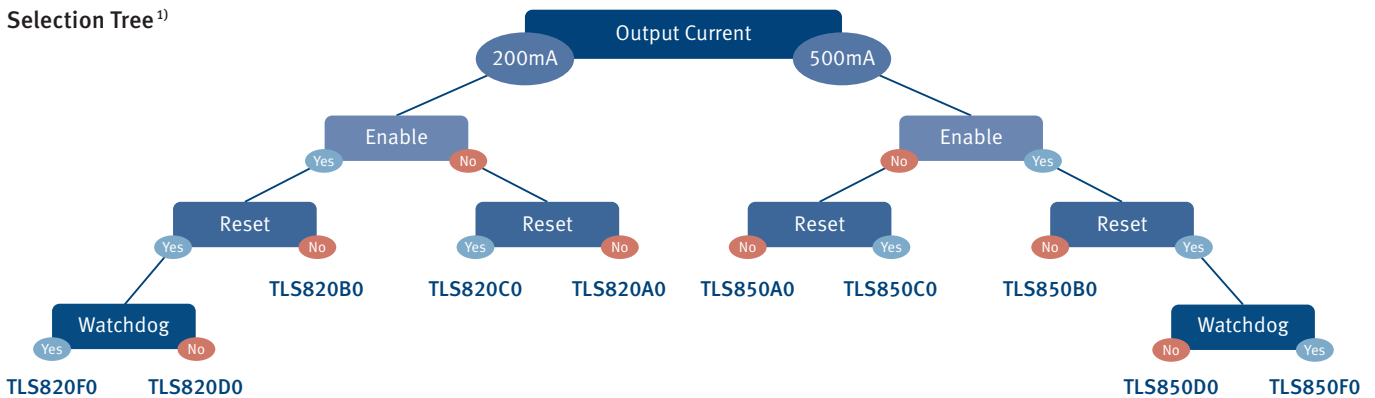
Linear High Performance Voltage Regulator



Family Overview

Key Features	Key Benefits
<p>Ultra Low Drop Voltage</p>	<p>Suitable for very low cranking (stop and start)</p>
<p>Low Quiescent Current</p>	<p>Energy efficiency: Save battery resources for ECUs in stand-by mode</p>
<p>Excellent Line & Load Transient</p>	<p>Design for harsh automotive environment</p>

Selection Tree ¹⁾



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

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