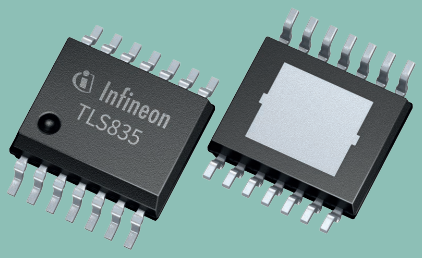


Product brief

TLS835/TLS820

Ultra-low current consumption linear voltage regulator family

High Performances

The TLS835/TLS820 is a family of linear voltage regulators that incorporates features such as wide input voltage range with a best in class combination of low dropout voltage and ultra-low quiescent current. The TLS835 and TLS820 have an output current of 350 mA and 200 mA respectively and are available in the SSOP-14 package. With a wide input voltage range of 3 V up to 40 V and the ultra-low quiescent current, these products are perfectly suitable for supply systems connected permanently to the battery and for cranking applications. The family offers various options of feature set and output voltage.

Products in this high performance linear regulator family incorporating the enable feature can be switched on and off using this feature. The current consumption of the device in off mode is less than 1 µA. The output voltage is supervised by the reset feature, including undervoltage reset and delayed reset release at power-on. The device also includes internal protection features such as output current limitation and overtemperature shutdown.

With this family a brand new feature of a “Selectable Output Voltage” is being introduced into the automotive linear regulator portfolio. The selectable variant can be configured to either a 5 V or a 3.3 V output by connecting the SEL pin either to output (Q) or to ground (GND) giving customers even more flexibility in their applications.

Applications

- Applications with direct battery connection
- Automotive general ECUs
- Dashboard, cluster, Infotainment
- Body control modules

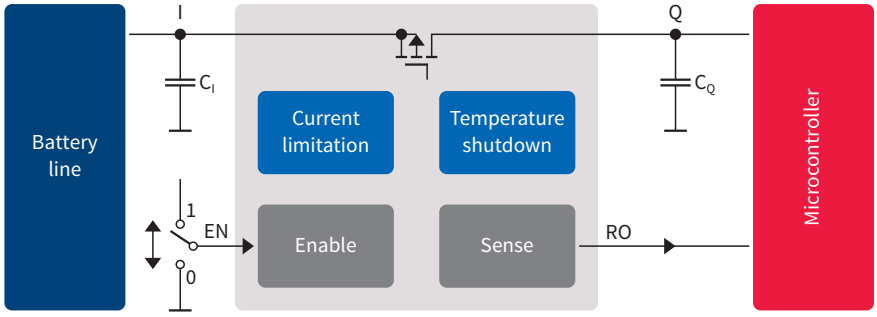
Key features

- Enable and reset
- Output voltage options:
  ADJ or Selectable (3.3 V or 5 V)
- Maximum output current
  – TLS835: 350 mA
  – TLS820: 200 mA
- Current consumption: 20 µA typically
- Available in SSOP-14 package

Benefits

- Excellent transient robustness → **smaller input capacitors hence lower input filtering costs**
- Functional input voltage range starts at 3 V and very low dropout voltage → **suitable for cranking**
- Stable with 1 µF output capacitor → **PCB space and cost savings**
- Ultra-low quiescent current and current consumption → **power saving for battery**

Application schematic



Enable Reset

RoHS AEC Qualified

www.infineon.com/voltage-regulator

TLS835/TLS820

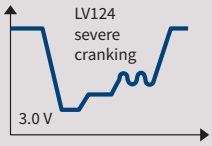
Ultra-low current consumption linear voltage regulator family

High Performances

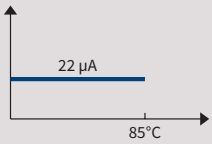
Family overview

Key features

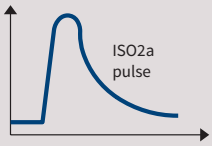
Extended input range



Ultra-low quiescent current



Excellent line transient



Key benefits

Start stop

Suitable for very low cranking (stop and start)

Battery

Energy efficiency: Save battery resources for ECUs in stand-by mode

Harsh environment

Design for harsh automotive environment

Product table

Product	OPN	Output current I_{out} [mA]	Quiescent current I_q [µA]	Enable feature	Reset feature	Output voltage [V]	Package
TLS835D2ELVSE	TLS835D2ELVSEXUMA1	350	25	Yes	Yes	Selectable 5 V or 3.3 V	SSOP-14
TLS835B2ELV	TLS835B2ELVXUMA1	350	22	Yes	No	Adjustable	SSOP-14
TLS835B2ELVSE	TLS835B2ELVSEXUMA1	350	22	Yes	No	Selectable 5 V or 3.3 V	SSOP-14
TLS820B2ELVSE	TLS820B2ELVSEXUMA1	200	20	Yes	No	Selectable 5 V or 3.3 V	SSOP-14

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