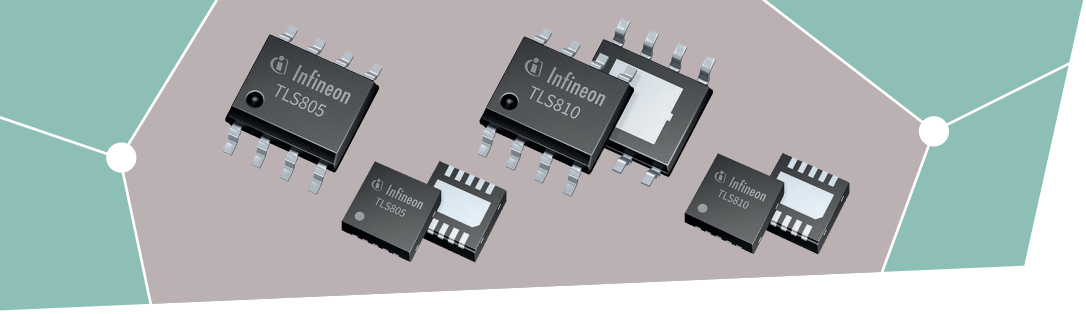


Product Brief

TLS810/TLS805

Ultra-low current consumption linear voltage regulator family

High performances

The TLS810/TLS805 is a family of linear voltage regulators that incorporates various features such as a wide input voltage range, low dropout voltage and ultra-low quiescent current. The TLS810 is a 100 mA linear voltage regulator available in TSON-10 and DSO-8 EP packages. The TLS805 is a 50 mA linear voltage regulator available in TSON-10 and DSO-8 packages.

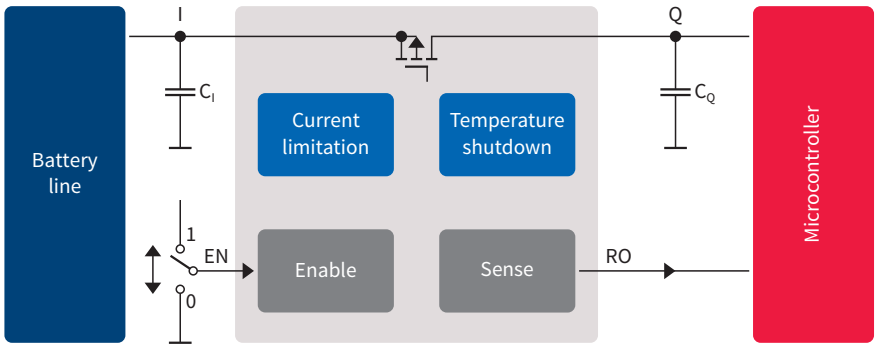
The wide input voltage range and the ultra-low quiescent current make it perfectly suitable for supply systems connected permanently to the battery. The family offers various options of feature set, output voltages and package types.

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 under-voltage reset and delayed reset release at power-on. The device also includes internal protection features such as output current limitation and overtemperature shutdown.

Applications

- Applications with direct battery connection
- Automotive general ECUs
- Infotainment, alarm, dashboard
- RKE, immobilizer, gateway

Application schematic



Key features

- Enable and reset
- Output voltage options: 5 V, 3.3 V, adj.
- Output current
  - TLS810: 100 mA
  - TLS805: 50 mA
- Current consumption: 5–9 µA
- Available in DSO-8 and TSON-10 packages

Benefits

- Functional input voltage range starts at 2.75 V and very low dropout voltage → **suitable for cranking**
- Ultra-low quiescent current and current consumption → **power saving for battery**
- Stable with 1 µF output capacitor → **PCB space and cost savings**
- Excellent transient robustness → **smaller input capacitors hence lower input filtering costs**

Enable Reset

RoHS AEC Qualified

www.infineon.com/voltage-regulator

TLS810/TLS805

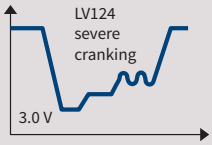
Ultra-low current consumption linear voltage regulator family

High performances

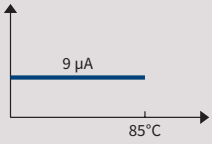
Family overview

Key features

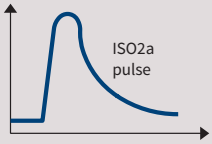
Extended input range



Ultra low quiescent current



Excellent line transient



Key benefits

Suitable for very low cranking (stop and start)

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

Design for harsh automotive environment

Product table

Product name	OPN	Output current I_{out} [mA]	Quiescent current I_q [µA]	Enable	Reset	Output voltage [V]	Package
TLS805B1LDV	TLS805B1LDVXUMA1	50	5.0	Yes	No	Adj.	TSON-10
TLS805B1LDV33	TLS805B1LDV33XUMA1	50	5.0	Yes	No	3.3	TSON-10
TLS805B1LDV50	TLS805B1LDV50XUMA1	50	5.5	Yes	No	5.0	TSON-10
TLS805B1SJV	TLS805B1SJVXUMA1	50	5.0	Yes	No	Adj.	DSO-8
TLS805D1LDV50	TLS805D1LDV50XUMA1	50	9.0	Yes	Yes	5.0	TSON-10
TLS810A1LDV33	TLS810A1LDV33XUMA1	100	5.0	No	No	3.3	TSON-10
TLS810A1LDV50	TLS810A1LDV50XUMA1	100	5.0	No	No	5.0	TSON-10
TLS810B1EJV33	TLS810B1EJV33XUMA1	100	5.5	Yes	No	3.3	DSO-8-EP
TLS810B1EJV50	TLS810B1EJV50XUMA1	100	5.5	Yes	No	5.0	DSO-8-EP
TLS810B1LDV33	TLS810B1LDV33XUMA1	100	5.5	Yes	No	3.3	TSON-10
TLS810B1LDV50	TLS810B1LDV50XUMA1	100	5.5	Yes	No	5.0	TSON-10
TLS810C1EJV33	TLS810C1EJV33XUMA1	100	8.5	No	Yes	3.3	DSO-8 EP
TLS810D1EJV33	TLS810D1EJV33XUMA1	100	9.0	Yes	Yes	3.3	DSO-8-EP
TLS810D1EJV50	TLS810D1EJV50XUMA1	100	9.0	Yes	Yes	5.0	DSO-8 EP
TLS810D1LDV33	TLS810D1LDV33XUMA1	100	9.0	Yes	Yes	3.3	TSON-10
TLS810D1LDV50	TLS810D1LDV50XUMA1	100	9.0	Yes	Yes	5.0	TSON-10

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