

L99VR02J

Automotive linear voltage regulator with configurable output voltages



With 8 fixed configurable output voltages from 0.8 to 5 V, the L99VR02J offers a rich set of features to help meet functional safety requirements

Fully compliant with automotive requirements, the L99VR02J can simplify the design of many applications through its 8 selectable fixed output voltages from 0.8 to 5.0 V and up to 500 mA load-current capability.

Able to operate both in post regulation, attached to a pre-regulated voltage, or directly connected to battery, the L99VR02J features enable, reset, autonomous watchdog, advanced thermal warning, fast output discharge and IShort control functions.

Its excellent thermal performance ensures a good fit with electronic applications in high-temperature environments.

Relevant safety documentation is available upon request to fulfill functional safety requirements.

KEY FEATURES & BENEFITS

- Selectable fixed output voltage (0.8; 1.2; 1.5; 1.8; 2.5; 2.8; 3.3 or 5 V)
- Output overvoltage detection
- High junction temperature
- Lower quiescent current in standby mode
- Thermal warning
- IShort control
- Watchdog
- Fast output discharge
- Enable and Reset

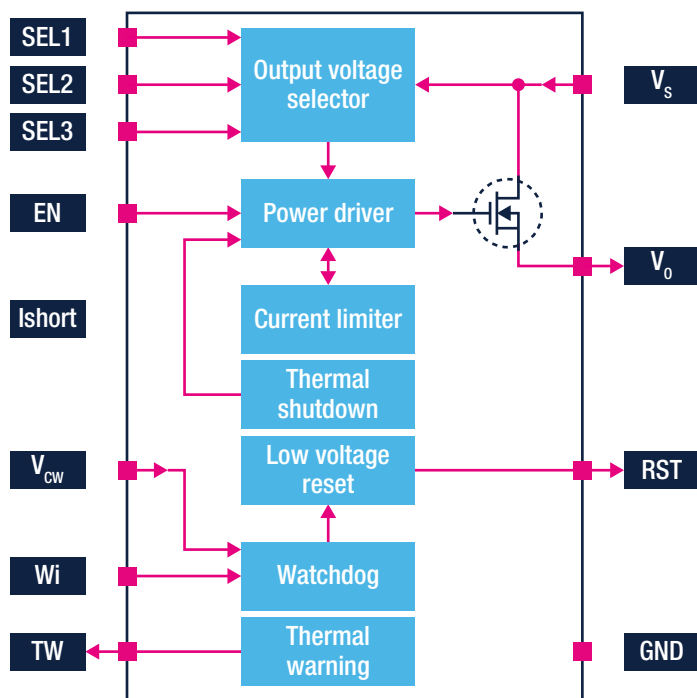
KEY APPLICATIONS

- Automotive display drivers
- MCU supplies
- Sensors
- Portable battery-powered electronic devices

Thanks to its 8 selectable fixed output voltages from 0.8 to 5.0 V, the L99VR02J automotive low-dropout linear voltage regulator can be used for several electronic applications such as navigation systems, MCU supplies, audio systems, powertrain systems, automotive display drivers, sensors (e.g. camera sensor), portable electronic applications, battery-powered instruments, medical & healthcare.

Due to its increased thermal performance up to 175 °C, the L99VR02J is ideal for electronic applications with high-temperature environments. Moreover, it is designed to support electronic platforms which need functional safety requirements, even if the device cannot be considered fully ASIL compliant according to ISO 26262. The L99VR02J LDO also guarantees additional benefits including improved qualification times and delivery support.

L99VR02J Block Diagram



Automotive-grade LDO evaluation board (AEK-POW-LDOV02J)

This AutoDevKit AEK functional board is a simple, low-cost and time-optimized tool to help automotive engineers evaluate the L99VR02JTR in applications such as microcontroller supplies, automotive display drivers, sensors, and infotainment processors.



Device summary

Part number	Package	Extended operative input voltage (V)	Regulated Output Voltage (V)	Output Current (mA)	Max Dropout voltage (mV)	Typ. Quiescent current (uA)	Features
L99VR02J	PowerSSO-12	2.15 to 28	0.8 to 5	500	500 ⁽¹⁾	1 ⁽²⁾	Enable, reset, watchdog, advanced thermal warning, Ishort control, and fast output discharge

Note: (1) With $I_o = 500$ mA

(2) Maximum value with regulator disabled



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