

## Product brief

# TLE4263-2GM

A monolithic integrated very low dropout voltage regulator with watchdog.

The OPTIREG™ linear TLE4263-2GM is a monolithic integrated very low dropout voltage regulator in a SMD package PG-DSO-14, especially designed for automotive applications. An input voltage up to 45 V is regulated to an output voltage of 5.0 V. The component is able to drive loads up to 180 mA. The IC is short-circuit proof by the implemented current limitation and has an integrated overtemperature shutdown.

It additionally provides features like power-on and undervoltage reset with adjustable reset threshold, a watchdog circuit for monitoring a connected microcontroller and an inhibit input for enabling or disabling the component.

The reset output RO is set to “low” in case the output voltage falls below the reset switching threshold  $V_{Q,rt}$ . This threshold can be decreased down to 3.5 V by an external resistor divider. The power-on reset delay time can be programmed by the external delay capacitor CD.

The watchdog circuit provides a monitoring function for microcontrollers: At missing pulses on the watchdog's input W the reset output RO is set to “low”. The trigger time for the watchdog pulses can be set by the external capacitor CD.

The IC can be switched off by the inhibit input, reducing the current consumption to typically 0 mA.

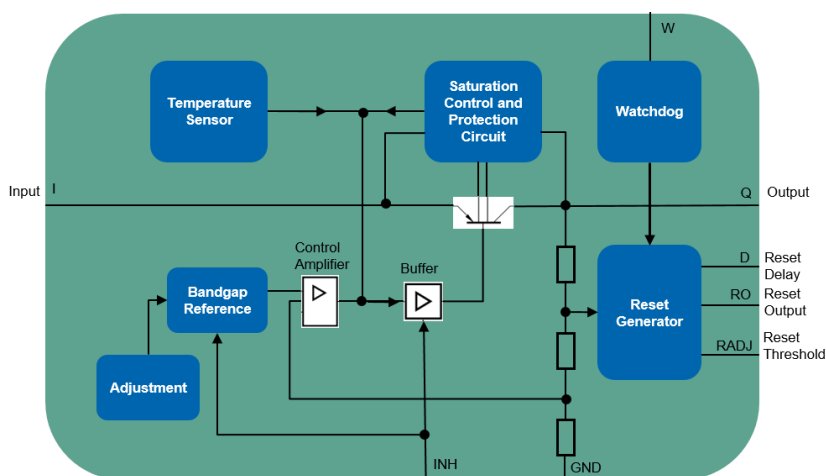
### Key features

- › Output voltage tolerance  $\leq \pm 2\%$
- › 180 mA output current capability
- › Low-drop voltage
- › Very low standby current consumption
- › Overtemperature protection
- › Reverse polarity protection
- › Short-circuit proof
- › Adjustable reset threshold
- › Watchdog for monitoring microprocessor
- › Power-on and undervoltage reset with programmable delay time
- › Reset low down to  $V_Q = 1V$
- › Wide temperature range
- › Suitable for use in automotive electronics
- › Green Product (RoHS compliant)

### Key benefits

- › Robust Protection Features
- › Wide Input Operation and Temperature Range

## Block Diagram



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