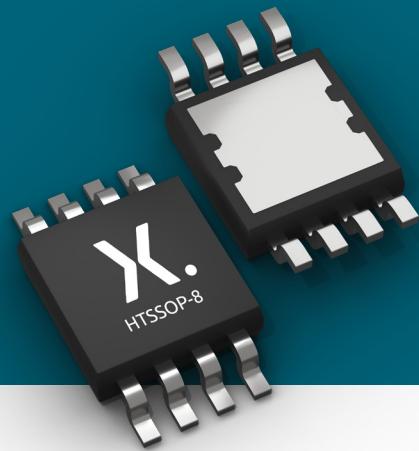


Power automotive system design with low standby:

The NEX90530-Q100 Linear voltage regulator



NEX90530-Q100 3 V - 40 V, 300 mA General output Linear regulator

The NEX90530-Q100 is an innovative low dropout (LDO) voltage regulator designed to meet requiring stable and efficient power delivery. With its AEC-Q100 qualification, this LDO is purpose-built for automotive applications, delivering ultra-low quiescent current (just 5 μ A) to reduce system standby power while maintaining exceptional line and load transient performance.

Ideal for powering MCUs, CAN transceivers, and other critical components, the NEX90530-Q100 ensures low output ripple and standby power, making it a perfect fit for applications such as body control modules, lighting systems, zone controllers, and battery management.

Available in the compact HTSSOP-8 package for excellent thermal performance, the NEX90530-Q100 series will soon expand to include DFN-6, SOT23-5, and SOT223-4 package options, providing flexible integration for your designs. Achieve precision, reliability, and efficiency with the NEX90530-Q100.

Features and Benefits

- › AEC-Q100 qualified for automotive applications
- › 3 V to 40 V wide Vin range with up to 45 V transient
- › Maximum output current 300 mA
- › 3.3 V/5 V fixed output
- › 5 μ A quiescent current at light load
- › Enable Pin and Power Good (PG) available
- › 550 mV typical dropout voltage at 5V/300 mA
- › Integrated fault protection
- › Thermal shutdown
- › Short-circuit protection

Applications

- › Automotive infotainment & cluster
- › Automotive body electronics & lighting
- › HEV/EV & powertrain
- › Automotive telematics
- › Industrial

nexperia

E F F I C I E N C Y W I N S .



Fig. 1. Typical application

Ordering Information

Part number	Temperature range	Package Name	Description	Version
NEX90530APA-Q100	-40 °C to +125 °C	HTSSOP-8	3-40 V _{IN} , 5 V/300 mA low I _Q (5 uA) low-dropout regulator with PG	SOT8062-1
NEX90530BPA-Q100	-40 °C to +125 °C	HTSSOP-8	3-40 V _{IN} , 3.3 V/300 mA low I _Q (5 uA) low-dropout regulator with PG	SOT8062-1
NEX90230APA-Q100	-40 °C to +125 °C	HTSSOP-8	3-40 V _{IN} , 5 V/300 mA low I _Q (5 uA) low-dropout regulator with PG	SOT8062-1
NEX90230BPA-Q100	-40 °C to +125 °C	HTSSOP-8	3-40 V _{IN} , 3.3 V/300 mA low I _Q (5 uA) low-dropout regulator	SOT8062-1
NEX90515APA-Q100	-40 °C to +125 °C	HTSSOP-8	3-40 V _{IN} , 5 V/150 mA low I _Q (5 uA) low-dropout regulator	SOT8062-1
NEX90515BPA-Q100	-40 °C to +125 °C	HTSSOP-8	3-40 V _{IN} , 3.3 V/150 mA low I _Q (5 uA) low-dropout regulator	SOT8062-1

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