

## Low offset voltage, small size and low current consumption contribute to higher-accuracy sensing

### Industry's lowest<sup>\*1</sup>

To improve accuracy of sensor readings

**Low offset voltage**

**±5** mV

To lower ECU standby current

**Low current consumption  
during power-off**

**4**  $\mu\text{A typ.}$

### Industry's lowest<sup>\*</sup>

For smaller footprint  
of automotive devices



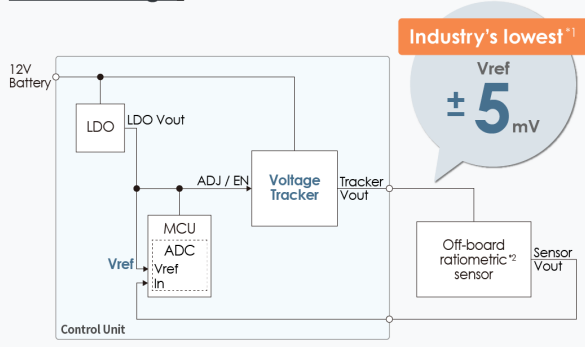
**Ultra-small package  
HSNT-6(2025)**

**2.46 × 1.96 × 1.05mm**

\*Based on our research as of November 2021

\*1 Based on our research as of November 2021 \*2 Proportional to power supply voltage

### Offset voltage



## Contributes to higher-accuracy sensing

The electrification of automobiles and the introduction of Advanced Driver Assistance Systems (ADAS) mean a great variety of sensors has to be installed to enable high accuracy for safe control

The S-19720 is a voltage tracker with **the industry's lowest offset voltage of ±5mV**.

This helps keep the power supply voltage of the off-board ratio-metric sensor equal to the reference voltage (Vref) of the AD converter (ADC) handling ECU measurements, raising sensor reading accuracy.

## Reduces overall footprint

The voltage tracker with its 36V input and 50mA output current is housed in an **HSNT-6(2025)**, **the industry's smallest package**.

The S-19720 helps further reduce the footprint of automotive devices.

The S-19720 also integrates an overcurrent protection circuit, a thermal shutdown circuit and a reverse current protection function. As a result, it will protect an ECU even in the event of a short to power / short to ground in a wire harness.

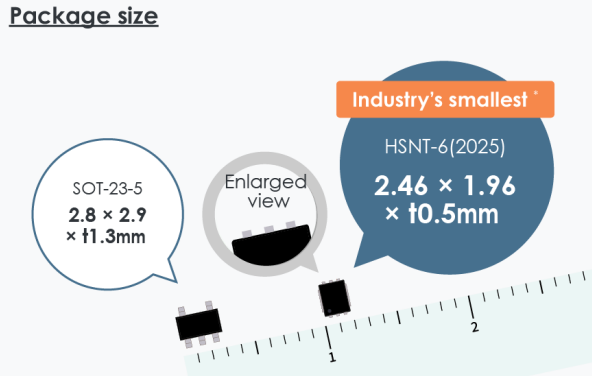
## Lowers ECU standby current

When IG is off, off-board sensors such as current sensors, ambient light sensors do not need to perform sensing; therefore, they are not supplied power by a tracker. However, the reverse current protection function, which protects an ECU even in the event of a short to power in a wire harness, has to continue to operate.

The S-19720 achieves **the industry's lowest class current consumption during power-off of 4 $\mu\text{A typ.}$**  when this function operates.

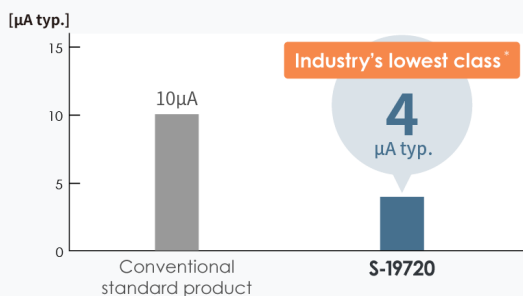
### Package size

\*Based on our research as of November 2021



### Current consumption during power-off

\*Based on our research as of November 2021

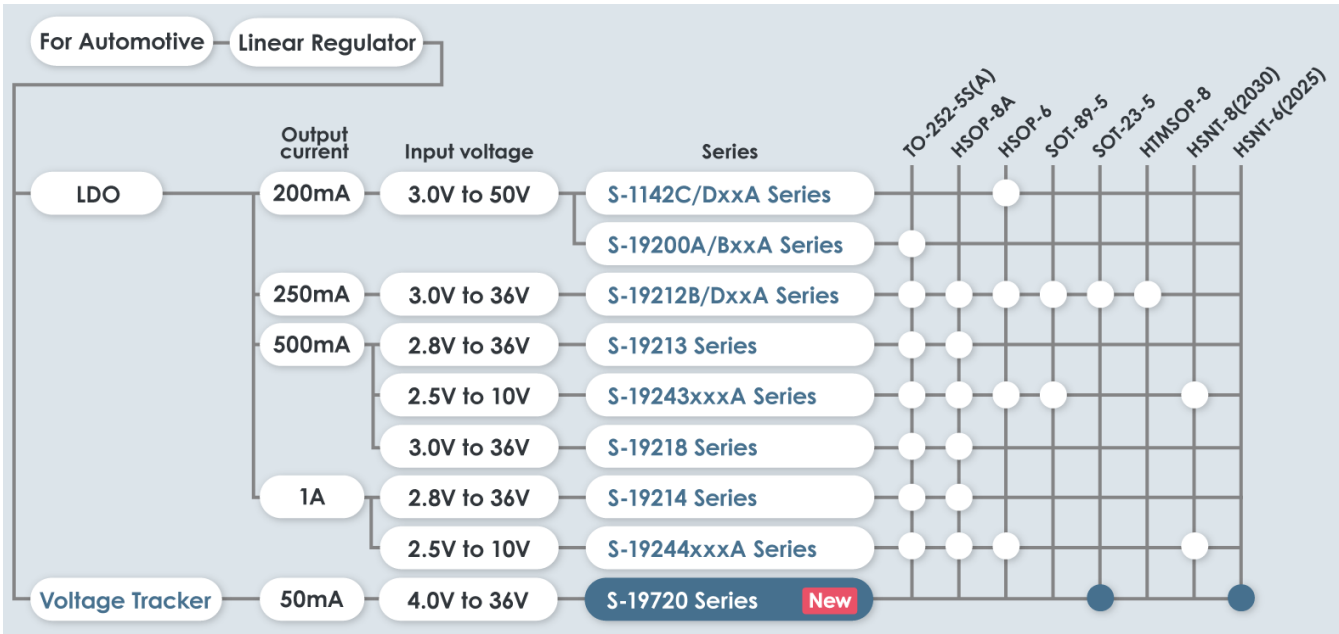


# Applications

Power supply for an automotive ECU off-board ratiometric sensors

ECU	Off-board ratiometric sensor
Inverter	Current sensor
On-board Charger	Current sensor
BMS	Temperature sensor
EPS	Torque sensor
Body Control Module	Ambient light sensor
HVAC	Temperature sensor
Cluster	Fuel sender gauge
Engine Control Unit	Angular position sensor
Electric Fuel Injection	Pressure sensor

## Automotive Linear Regulator (125°C operation) Product Lineup



## Features

Product name	S-19720 Automotive
Input voltage	4.0V to 36.0V
Offset voltage	±5mV (0.1mA ≤ I <sub>OUT</sub> ≤ 50mA)
Dropout voltage	160mV typ. (V <sub>ADJ</sub> / EN = 4.0V, I <sub>OUT</sub> = 10mA)
Output current	Possible to output 50mA (V <sub>IN</sub> = V <sub>ADJ</sub> / EN + 2.0V)
Current consumption	During operation: 30μA typ. During power-off: 4.0μA typ.
Package	SOT-23-5, HSNT-6(2025)
Automotive quality	AEC-Q100 in process
Operation temperature range	Ta = -40°C to +125°C

As of 5/27, 2022. All the information described herein is subject to change without notice.



ABLIC Inc.

The latest information  
<https://hub.ablic.com/en/products/s-19720?LF>

