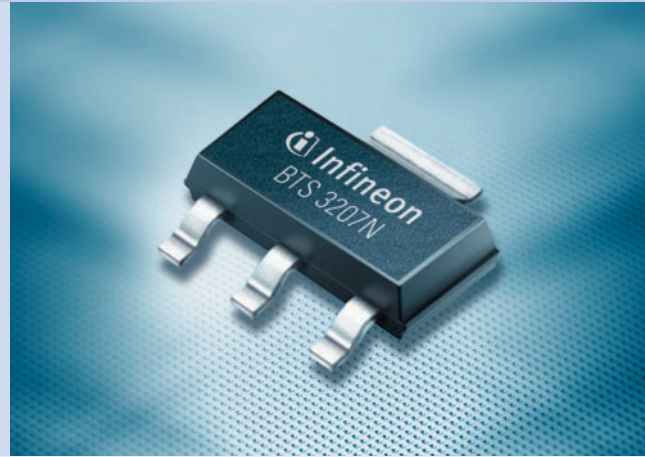


BTS 3207N

HITFET®

Smart Low-Side Power Switch
One Channel 500 mΩ



THE BTS 3207N is a one channel low-side power switch. It has an on resistance of 500 mΩ.

BTS 3207N and BSP 75N are both in the 500 mΩ area. BTS 3207N is specially for cost driven applications and fits especially to relay applications.

THE DEVICE was developed to fulfill automotive requirements. Therefore the BTS 3207N is equipped with the proven HITFET protection functions.

The device is protected against:

- Short circuit: to protect the device and circuitry during short of the load
- Overtemperature: for handling overload situations and bad cooling conditions
- Overvoltage: for switching inductive loads and to protect against load dump
- ESD: for easier handling during production and maintenance

THE DEVICE also has embedded status feedback functionality. In the case of overtemperature or short circuit switch off the input pin sinks increased current. The increased current can be measured by a micro controller and action can be taken.

IN ADDITION the BTS 3207N allows high inrush currents leading to no application limitations due to low current limitation.

Basic Functions

- Current limitation
- Low input current
- Analog driving possible
- Pin compatible to standard Power MOSFET

Protective Functions

- Short circuit protection
- Thermal shutdown with latch
- Active clamp over voltage protection
- Electrostatic discharge protection (ESD)

Fault Information

- Short circuit
- Thermal shutdown

Applications

- Especially suitable for driving relays
- All types of resistive, inductive and capacitive loads

Benefits

- Very low quiescent current
- High inrush current possible
- EMC optimized switching
- All application relevant protection included in the device

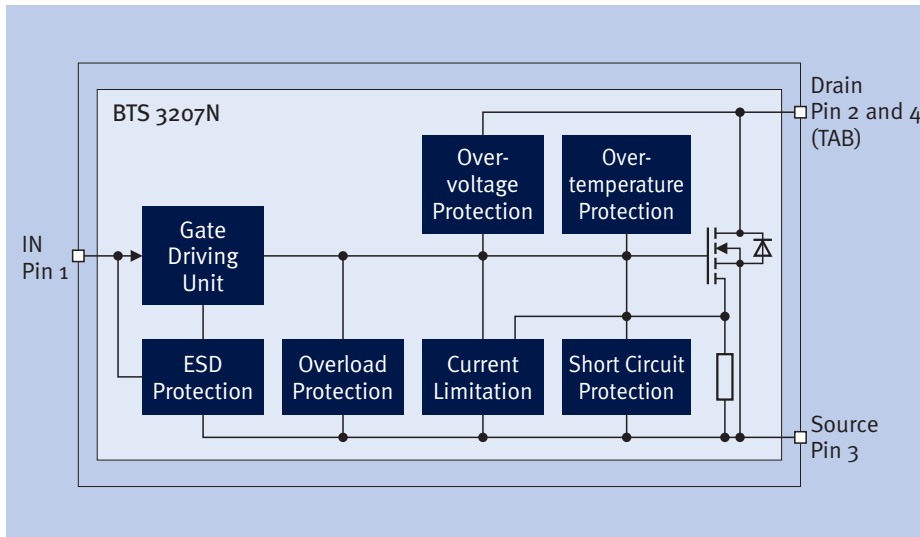
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Automotive Power



Never stop thinking.

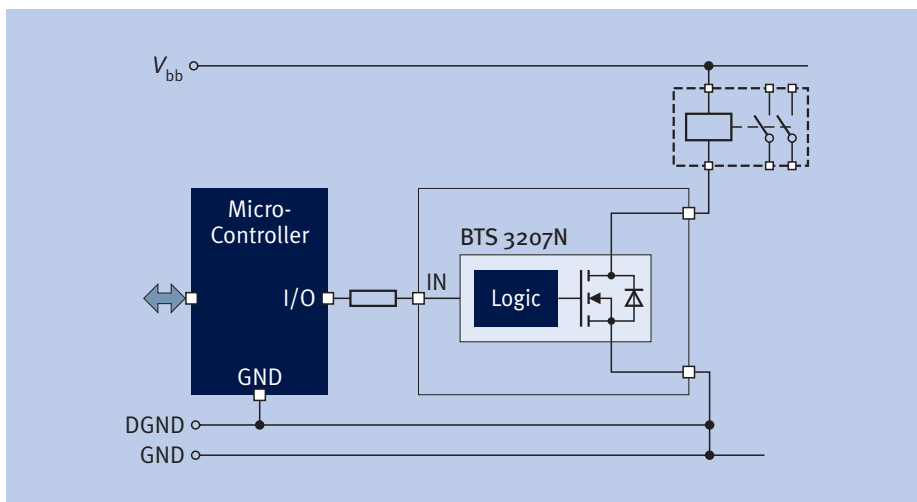
Block Diagram



Product Summary

Parameter	Symbol	Value
Sales Code		Please contact Infineon Sales
Package		SOT223
Drain Voltage Internal Clamped	V_{DS}	42 V
Input Voltage	$V_{IN,max}$	10 V
ON-State Resistance	$R_{DS(ON,max)}@25^{\circ}C$	500 m Ω
Nominal Load Current	I_{Dnom}	0.64 A
Drain Current Internal Limited	$I_{Dlim,min}$	5 A
Clamping Energy	$E_{AS@1.4A}$	150 mJ
Leakage Current MOSFET	I_{DSS}	10 μ A

Application Example Relay Driving



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For further information on technology, delivery terms and conditions and prices please contact your nearest Infineon Technologies Office.

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