



**THE DATASHEET OF
TLE7235EMXUMA1**





SPIDER HS/LS Enhanced SPI Driver for Enhanced Relay Control TLE 723xSL/3xSE/3xEM

The Infineon SPIDER high-side / low-side (HS/LS) enhanced family consists of nine family members. They are all eight-channel SPI-controlled combined high- and low-side switches especially designed to drive automotive relays.

The HS/LS family consists of three sub-families (-SL, -SE and -EM), offering different combinations of current capability and package size. Within these sub-families, the device can be selected by its featureset limp-home or low-voltage cranking (down to 4.0V).

The subfamily devices are pin-compatible and devices with same featureset are software compatible. So it is easily possible to switch from one device to another.

All devices are protected against short circuit and overload and especially designed to fulfil the requirements of the harsh automotive environment.

Applications

- High-side and low-side driven automotive relays
- Small LEDs and other small signal loads

Key Features

- Logic part of all devices is protected against reverse battery
- High flexibility due to 4 high-side 2 configurable, 2 low-side channels
- SPI communication
- Short circuit and over load protection, thermal shutdown
- Scalable by featureset and current capability
- Cranking and limp home version available

Key Benefits

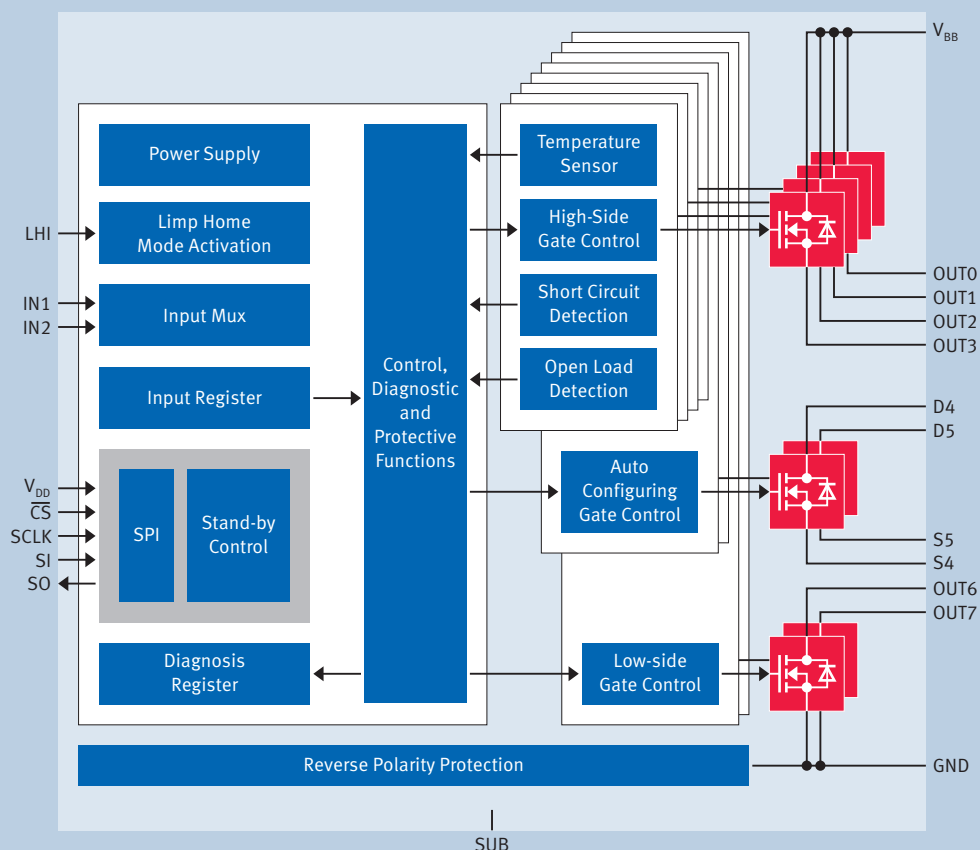
- Reduced microcontroller I/Os
- Small package to reduce board space
- Possibility to address safety critical application under harsh automotive conditions
- If you know one device you know the whole family



SPIDER HS/LS Enhanced

TLE 723xSL/3xSE/3xEM

Block Diagram TLE 7239SL



SPIDER HS/LS Enhanced Family

| Product | Nominal Current | Package | Features |
|------------|------------------|------------------------|---------------------------------|
| TLE 7237SL | 6*230mA, 2*130mA | PG-SSOP-24 | 3 Direct Inputs |
| TLE 7238SL | 6*230mA, 2*130mA | PG-SSOP-24 | 2 Limp Home Channels |
| TLE 7239SL | 6*230mA, 2*130mA | PG-SSOP-24 | 2 Limp Home Channels & Cranking |
| TLE 7234SE | 6*280mA, 2*140mA | PG-DSO-20 | 3 Direct Inputs |
| TLE 7235SE | 6*280mA, 2*140mA | PG-DSO-20 | 2 Limp Home Channels |
| TLE 7236SE | 6*280mA, 2*140mA | PG-DSO-20 | 2 Limp Home Channels & Cranking |
| TLE 7234EM | 6*350mA, 2*175mA | PG-SSOP-24 Exposed Pad | 3 Direct Inputs |
| TLE 7235EM | 6*350mA, 2*175mA | PG-SSOP-24 Exposed Pad | 2 Limp Home Channels |
| TLE 7236EM | 6*350mA, 2*175mA | PG-SSOP-24 Exposed Pad | 2 Limp Home Channels & Cranking |

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