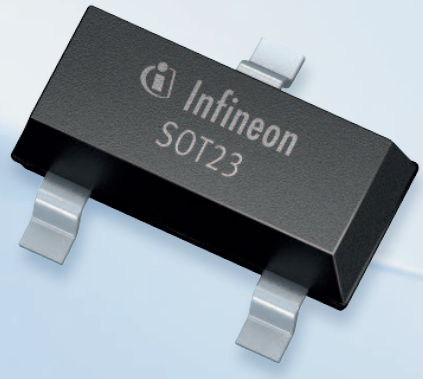
Product Brief



New Generation Hall Switches

Infineon offers Hall Switches in small automotive qualified SOT23 package

The new family of Infineon Hall Switches include latches and unipolar switches. Designed in a new technology, the family offers high voltage capabilities with very small current consumption. The products can be operated from unregulated power supplies which offers our customers unique freedom of design for their system.

The superior peak overvoltage capability of up to 42V makes additional resistors redundant. This allows the reduction of external, passive protection components which reduces system PCB space, design and inspection cost.

With the typical current consumption of 1.6mA, the family offers more than 50% reduction to comparable products and is therefore ideally suited for upcoming energy sensitive systems.

Targeted for automotive market with high quality requirements, strong ESD functionality and high stability of magnetic thresholds over temperature and life time have been realized.

Offered in the very small SOT23 package, the slender footprint saves additional space and delivers an optimized air gap performance compared to other packages.

To enable our customers system the highest quality standards and fulfill diverse range of environmental guidelines, the new family in SOT23 package is halogen free, RoHs compliant and AEC Q100 certified.

Sales Name	Description	Order Code
TLE4961-1M	±2mT Latch	SP000923322
TLE4961-2M	±5mT Latch	SP000997954
TLE4961-3M	±7.5mT Latch	SP000909960
TLE4961-4M	±10mT Latch	SP001042410
TLE4961-5M	±15mT Latch	SP001013854
TLE4964-1M	12.5/18mT Unipolar Switch	SP000923326
TLE4964-2M	22.5/28mT Unipolar Switch	SP000923330
TLE4964-3M	9.5/12.5mT Unipolar Switch	SP001013860
TLE4964-4M	8.5/10mT Unipolar Switch	SP001042414
TLE4964-5M	5/7.5mT Unipolar Switch	SP000997958
TLE4964-6M	2.5/3.5mT Unipolar Switch	SP001042418
TLE4968-1M	±1mT Bipolar Switch	SP000923334

www.infineon.com/hall-switches

Features

- 3.0V to 32V operating supply voltage
- Operation from unregulated power supply
- Reverse polarity protection (-18V)
- Overvoltage peak capability up to 42V without external resistor
- Small current consumption (1.6mA)
- Current limited output with overtemperature protection
- Active error compensation
- High stability of magnetic thresholds
- High ESD performance
  - 7kV HBM
  - 15kV system level ESD
- Small SMD package SOT23
- Package height 1mm
- Defined start-up and shut-off behavior

Applications

- Window lifter (index counting)
- Power closing (index counting)
- Gear stick (position detection)
- Seat belt (position detection)
- BLDC (commutation)

Halogen-Free

RoHS

AEC Qualified

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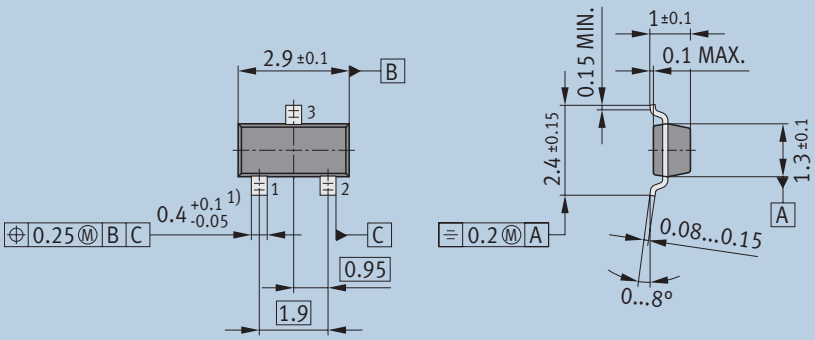
Operating Parameters

Parameter	Min. Value	Typ. Value	Max. Value	Unit
Supply Voltage	3.0	–	32	V
Output Voltage	-0.3	–	32	V
Output Current	0	–	25	mA
Magnetic Signal Input Frequency	0	–	10	kHz
Supply Current	–	1.6	2.5	mA
ESD				
ESD Voltage (HBM)	–	–	±7	kV
System Level ESD	–	–	±15	kV

SOT23 Package Outline



1) Lead width can be 0.6 max. in dambar area

All dimensions in mm

For detailed package information please visit www.infineon.com/packages

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Visit us:
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