

# New Generation Hall Switches

Replacement types for our legacy sensor products in SOT89 package

## TLE4961-1K, TLE4964-3K, TLE4961-5K

The new family of Infineon Hall Switches includes 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 precise magnetic thresholds over temperature and life time have been realized.

Offered in the small SC59 package, the slender footprint saves more than 50% PCB space compared to legacy SOT89 package.

All products of the family are AEC Q100 certified and enable our customers to build systems for the highest automotive quality requirements. Products in SC59 package are halogen free and RoHS compliant, fulfilling a extensive range of environmental guidelines.

Sales Name	Description	Order Code	Replacement for
TLE4961-1K	±2mT Latch	SP000848008	TLE4945-2G
TLE4964-3K	12.5mT Unipolar Switch	SP000910188	TLE4905G
TLE4961-5K	±15mT Latch	SP000910192	TLE4935G

### 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 SC59
- Package height 1mm
- Defined start-up and shut-off behavior

### Application Examples

- 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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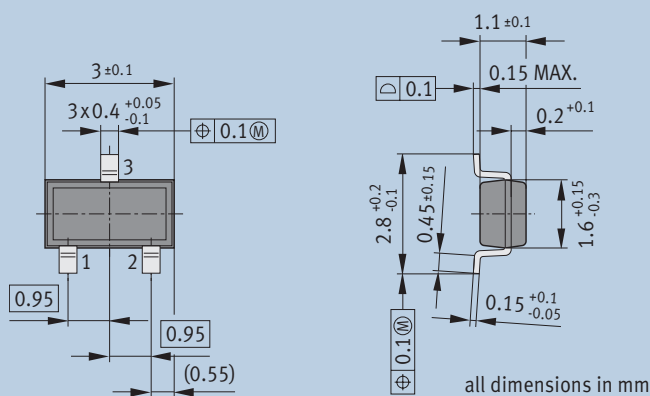
## Operating Parameters

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
<b>ESD</b>				
ESD Voltage (HBM)	–	–	±7	kV
System Level ESD	–	–	±15	kV

## Magnetic Parameters

Product Types	Operation Point @ 25°C [mT]	Release Point @ 25°C [mT]
TLE4961-1K	2	-2
TLE4964-3K	12.5	9.5
TLE4961-5K	15	-15

## SC59 Package Outline



For detailed package information please visit [www.infineon.com/packages](http://www.infineon.com/packages)

Published by  
Infineon Technologies AG  
85579 Neuburg, Germany

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Order Number: B142-H9656-G1-X-7600  
Date: 05 / 2012

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