



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 overvoltage of up to 32 Volt 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 capability up to 42V without external resistor
- Small current consumption (1.6mA)
- Output overcurrent & overtemperature protection
- Active error compensation
- High stability of magnetic thresholds
- Small SMD package (SC59)

Application Examples

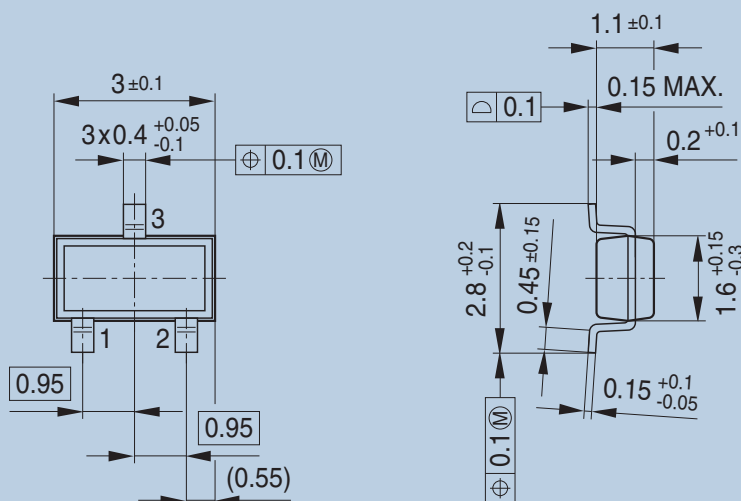
- Window lifter (index counting)
- Power closing (index counting)
- Gear stick (position detection)
- Seat belt (position detection)
- BLDC (commutation)

New Generation Hall Switches

Replacement types for our legacy sensor products in SOT89 package

Parameter	Min. Value	Max. Value	Unit
Supply Voltage	3.0	32	V
Output Voltage	-0.7	32	V
Output current	0	25	mA
Parameter	Typ. Values	Max. Value	Unit
Supply current	1.6	2.5	mA
Power-on time	80	150	µs

	@25°C	Operation Point (mT)	Release Point (mT)
TLE4961-1K		2	-2
TLE4964-3K		12.5	9.5
TLE4961-5K		15	-15



SC59 Package Outline (all dimensions in mm)

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

Published by
Infineon Technologies AG
85579 Neubiberg, Germany

© 2011 Infineon Technologies AG.
All Rights Reserved.

Visit us:
www.infineon.com

Order Number: B142-H9656-X-X-7600
Date: 10 / 2011

ATTENTION PLEASE!

The information given in this document shall in no event be regarded as a guarantee of conditions or characteristics ("Beschaffungsgarantie"). With respect to any examples or hints given herein, any typical values stated herein and/or any information regarding the application of the device, Infineon Technologies hereby disclaims any and all warranties and liabilities of any kind, including without limitation warranties of non-infringement of intellectual property rights of any third party.

INFORMATION

For further information on technology, delivery terms and conditions and prices please contact your nearest Infineon Technologies Office (www.infineon.com).

WARNINGS

Due to technical requirements components may contain dangerous substances. For information on the types in question please contact your nearest Infineon Technologies Office. Infineon Technologies Components may only be used in life-support devices or systems with the express written approval of Infineon Technologies, if a failure of such components can reasonably be expected to cause the failure of that life-support device or system, or to affect the safety or effectiveness of that device or system. Life support devices or systems are intended to be implanted in the human body, or to support and/or maintain and sustain and/or protect human life. If they fail, it is reasonable to assume that the health of the user or other persons may be endangered.