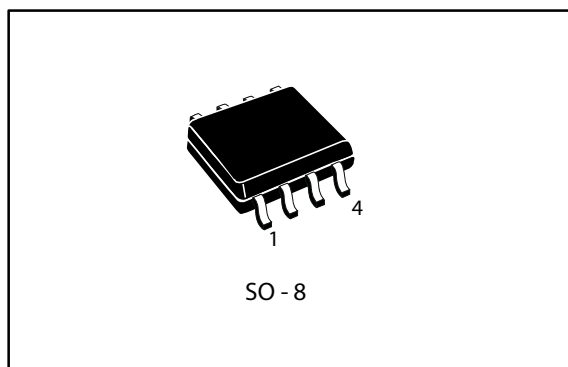


OMNIFET III fully protected low-side driver

Data brief


Description

The VNLD5160-E is a monolithic device made using STMicroelectronics® VIPower® technology, intended for driving resistive or inductive loads with one side connected to the battery.

Built-in thermal shutdown protects the chip from overtemperature and short-circuit. Output current limitation protects the device in an overload condition. In case of long duration overload, the device limits the dissipated power to a safe level up to thermal shutdown intervention.

Thermal shutdown, with automatic restart, allows the device to recover normal operation as soon as a fault condition disappears. Fast demagnetization of inductive loads is achieved at turn-off.

Features

Type	V _{CLAMP}	R _{DS(ON)}	I _D
VNLD5160-E	41 V	160 mΩ	3.5 A

- Automotive qualified
- Drain current: 3.5 A
- ESD protection
- Overvoltage clamp
- Thermal shutdown
- Current and power limitation
- Very low standby current
- Very low electromagnetic susceptibility
- Compliant with European directive 2002/95/EC
- Open drain status output
- Specially intended for R10W or 2x R5W automotive signal lamps

Table 1: Device summary

Package	Order codes	
	Tube	Tape and reel
SO-8	VNLD5160-E	VNLD5160TR-E

1 Revision history

Table 2: Document revision history

Date	Revision	Changes
27-Nov-2014	1	Initial release.

IMPORTANT NOTICE – PLEASE READ CAREFULLY

STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST's terms and conditions of sale in place at the time of order acknowledgement.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers' products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2014 STMicroelectronics – All rights reserved