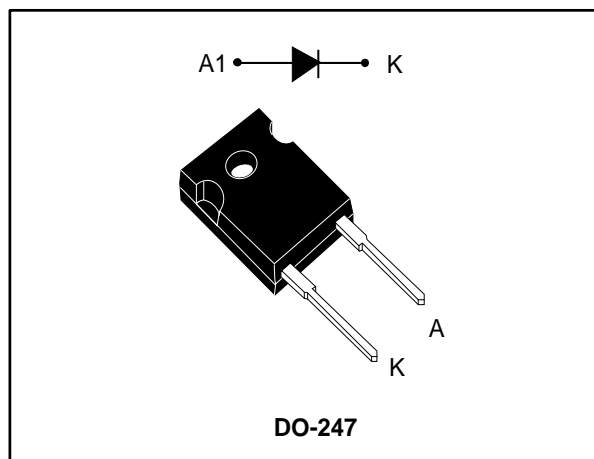


Automotive high voltage rectifier for bridge applications

Data brief


Features

- Ultra-low conduction losses
- High junction temperature capability
- V_{RRM} guaranteed from -40 to +175 °C
- ECOPACK[®]2 compliant
- AEC-Q101
- PPAP capable

Description

STBR6012-Y automotive grade rectifier is specifically designed to be used in automotive primary bridges.

Its very low forward voltage over the operating temperature range permits to reduce the conduction losses into the bridge whatever the temperature.

The high quality design of this diode has produced a device with regularly reproducible characteristics and intrinsic ruggedness. These characteristics make it ideal for heavy duty applications that demand long term reliability like automotive applications.

Thanks to its ultra-low conduction losses, this diode is especially suitable for use as input bridge diode in battery-chargers.

Table 1: Device summary

Symbol	Value
$I_{F(AV)}$	60 A
V_{RRM}	1200 V
$V_{F(60 A, 25\text{ °C})}$ (typ)	1.1 V
$V_{F(60 A, 150\text{ °C})}$ (typ)	1.0 V
T_j (max)	-40 to +175 °C

1 Revision history

Table 2: Document revision history

Date	Revision	Changes
12-Jul-2016	1	First issue.

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.

© 2016 STMicroelectronics – All rights reserved