

650 V high voltage rectifier for BC² topology

Data brief

Features

- high voltage rectifier
- optimized diode for BC² topology (ST patent)
- low switching losses
- improves efficiency by up to 2.5% compared to conventional continuous mode PFC using standard ultrafast 600 V PN diodes
- performance efficiency improved by up to 0.5% compared with 600 V Schottky power diodes with no reverse recovery charges used in CCM PFC at 200 kHz
- helps meet the 80+ efficiency requirements
- supports PFC working up to 300 kHz
- suitable for PFC up to 2 kW
- compatible with standard PFC controller ICs

Description

The STTH8BC065 is a specific rectification diode used in continuous mode power factor correction working in the BC² topology. This diode has been especially designed for the dedicated BC² topology. Therefore, its electrical characteristics offer the best possible efficiency with a P-N optimized structured diode. As a result, SMPS efficiency growth of up to 2.5% can be produced compared with standard ultrafast 600 V P-N diode.

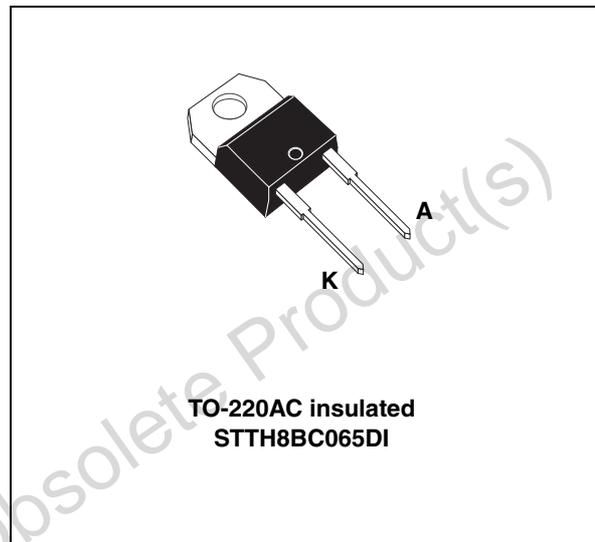


Table 1. Device summary

Symbol	Value
$I_{F(AV)}$	8 A
V_{RRM}	650 V

1 Ordering information

Table 2. Ordering information

Order code	Marking	Package	Weight	Base qty	Delivery mode
STTH8BC065DI	STTH8BC065DI	TO-220AC Ins	1.86 g	50	Tube

2 Revision history

Table 3. Document revision history

Date	Revision	Changes
05-Nov-2010	1	Initial release.

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