

## 600 V high voltage rectifier for BC<sup>2</sup> topology

Data brief

### Features

- optimized diode for BC<sup>2</sup> topology (ST patent)
- low conduction 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 STTH8BC060 is a specific rectification diode used in continuous mode power factor correction working in the BC<sup>2</sup> topology. This diode has been especially designed for the dedicated BC<sup>2</sup> 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.

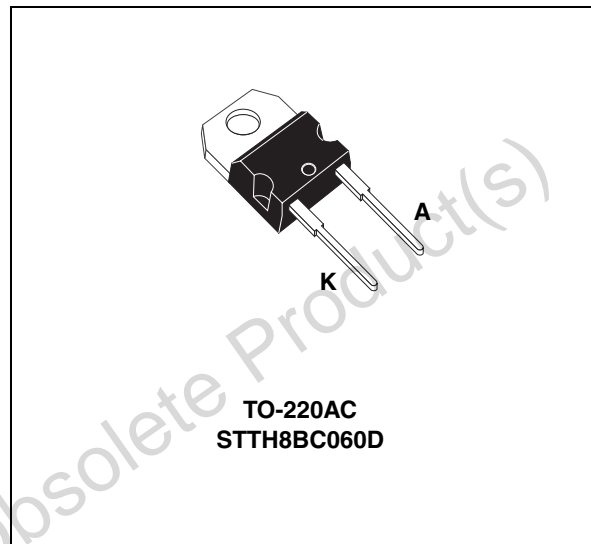


Table 1. Device summary

| Symbol      | Value |
|-------------|-------|
| $I_{F(AV)}$ | 8 A   |
| $V_{RRM}$   | 600 V |

## 1 Ordering information

Table 2. Ordering information

| Order code  | Marking     | Package  | Weight | Base qty | Delivery mode |
|-------------|-------------|----------|--------|----------|---------------|
| STTH8BC060D | STTH8BC060D | TO-220AC | 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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