

Join the Infineon IGBT Revolution

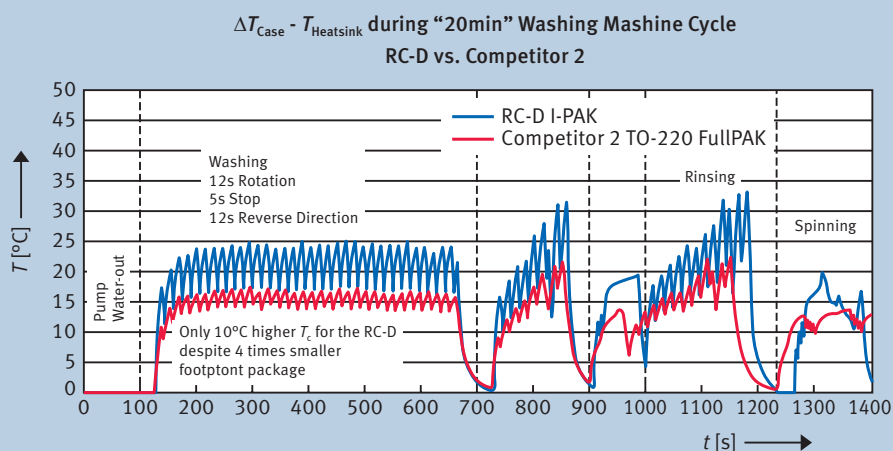
Everything has got smaller, even the price

IGBTs up to 15A can now be offered in either a D-PAK (TO-252) or I-PAK (TO-251) at a revolutionary price. Infineon's new Reverse Conducting (RC-D) IGBT family is recommended for hard switching applications up to 5kW. The RC-D family uses $V_{ce(sat)}$ optimised TRENCHSTOP™ IGBTs and commutation proof diodes that are integrated into a monolithic die.

Commercially, the outstanding feature is the price. Not just from the savings made on the customer's bill of materials, but also the RC-D IGBTs themselves. Smaller dies and packages mean substantial savings that can be passed on.

Quality does not come at a price. The RC-D family is qualified to JEDEC standard with a $T_{j(max)}$ of 175°C. Additionally, the D-PAK family is also qualified according to Infineon's "Automotive Excellence" program for automotive use.

Let the revolution begin!



Outstanding thermal behaviour is proven in application measurements, which show comparable case temperatures compared to TO-220 and D²-PAK packaged IGBTs currently on the market.

Applications

- All hard switching applications up to 5kW
- Inverterised motors, pumps, & fans
- Industrial drives
- Room and public air-conditioners
- Vacuum cleaners
- Industrial drives
- PFC Stages
- Automotive HID lighting

Features

- Best in class current versus package size (15A in D-PAK/I-PAK)
- Optimised $V_{ce(sat)}$ for low conduction losses
- Same DC current rating of diode and IGBT
- $T_{j(max)}$ of 175°C
- 5µs Short Circuit capability
- Wide range of turn-off/-on time controllability via gate resistor

Benefits

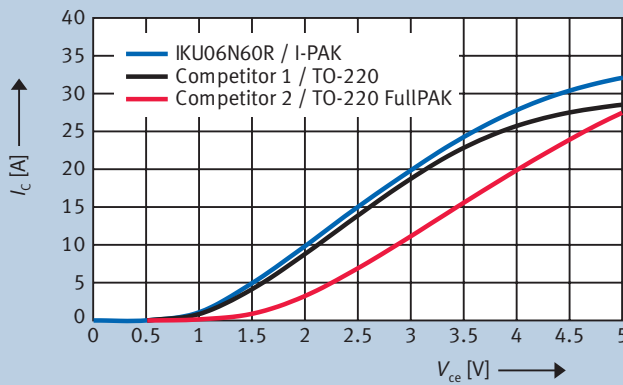
- Up to 60% space saving on the PCB
- Best cost/performance on today's market for hard switching applications up to 5kW
- Excellent EMI behaviour
- Higher reliability due to monolithically integrated IGBT + diode

Join the Infineon IGBT Revolution

Everything has got smaller, even the price

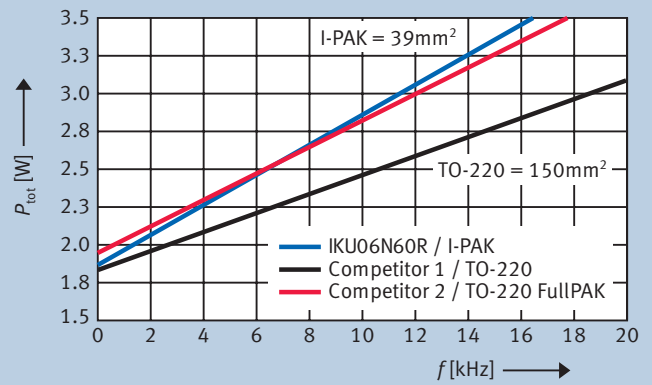


IGBT Output Characteristics Highlighting the Excellent $V_{ce(sat)}$ Behaviour of the RC-D family; $T_j = 25^\circ\text{C}$




In the application, conduction losses are dominant up to 16kHz. That's why the RC-D family has been $V_{ce(sat)}$ optimised

Power Loss Comparison of RC-D in an I-PAK vs. Competitor Devices in a TO-220 B6-Inverter Hardswitching; $I_c = 6\text{A}$, $V_{ce} = 400\text{V}$, $T_j = 175^\circ\text{C}$



The RC-D in the I-PAK shows comparable power losses compared to a larger TO-220

Product Portfolio for 600 V IGBT RC-D

$I_{C(max)}$ [A]	$I_{Cpuls(max)}$ [A]	$P_{tot(max)}$ [W]	$V_{ce(sat)}(typ.)$ [V]	D-PAK 	I-PAK 	Availability
4	12	73	1.65	IKD04N60R	IKU04N60R	Now
4	12	73	1.65	IKD04N60RA		Now
6	18	102	1.65	IKD06N60R	IKU06N60R	Now
6	18	102	1.65	IKD06N60RA		Now
10	30	154	1.65	IKD10N60R	IKU10N60R	Now
10	30	154	1.65	IKD10N60RA		Now
15	30	241	1.65	IKD15N60R	IKU15N60R	Now
15	30	241	1.65	IKD15N60RA		Now

How to reach us:
<http://www.infineon.com>

Published by
Infineon Technologies AG
81726 Munich, Germany

© 2009 Infineon Technologies AG
All Rights Reserved.

Legal Disclaimer The information given in this Product Brief shall in no event be regarded as a guarantee of conditions or characteristics. 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 the 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 the nearest Infineon Technologies Office. Infineon Technologies components may be used in life-support devices or systems only 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.

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



Тел: +7 (812) 336 43 04 (многоканальный)
Email: org@lifeelectronics.ru