

# IPT60R145CFD7

Infineon's answer to resonant high power topologies

The **600V CoolMOS™ CFD7** is Infineon's latest high-voltage superjunction MOSFET technology with integrated fast body diode, completing the CoolMOS™ 7 series. CoolMOS™ CFD7 comes with reduced gate charge (Q<sub>g</sub>), improved turn-off behavior and a reverse-recovery charge (Q<sub>rr</sub>) of up to 69% lower compared to the competition, as well as the lowest reverse recovery time (t<sub>rr</sub>) in the market.

### Summary of Features

- Ultra-fast body diode
- Best-in-class reverse-recovery charge (Q<sub>rr</sub>)
- Improved reverse diode dv/dt and di/dt ruggedness
- Lowest FOM R<sub>DS(on)</sub> X Q<sub>g</sub> and E<sub>oss</sub>
- Best-in-class R<sub>DS(on)</sub>/package combinations

### Benefits

- Best-in-class hard commutation ruggedness
- Highest reliability for resonant topologies
- Highest efficiency with outstanding ease-of-use/performance trade-off
- Enabling increased power density solutions

### Potential Applications

Server, Telecom, EV-charging, SMPS, PC power

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02\_03 | 2020-12-09 | pdf | 1.2 MB



Perfect match! 2EDN EiceDRIVER™ family  
Enabling optimized system solutions for high power designs

Find out more

**Gate Driver Finder**

Select Voltage Class  
5 selected: 600.0 V, 650.0 V

V<sub>GS(on)</sub> 15 V<sub>GS(off)</sub> 0 V

Switch Type  
 MOSFET  IGBT  SiC  
 MOSFET  GaN HEMT

Qualification  
 Automotive  Industrial  Any

Reset Find >

## Parametrics

Parametrics	IPT60R145CFD7
I <sub>D</sub> (@25°C) max	19.0 A
I <sub>D</sub> max	19.0 A
I <sub>Dpuls</sub> max	51.0 A
Mounting	SMT
Operating Temperature min max	-55.0 °C 150.0 °C
P <sub>tot</sub> max	116.0 W
Package	TOLL (HSOF-8)
Pin Count	8.0 Pins
Polarity	N
Q <sub>G</sub> (typ @10V)	28.0 nC
Q <sub>G</sub>	28.0 nC
R <sub>DS(on)</sub> (@10V) max	145.0 mΩ
R <sub>DS(on)</sub> max	145.0 mΩ
V <sub>DS</sub> max	600.0 V
V <sub>GS(th)</sub> min max	4.0 V 3.5 V 4.5 V

## Documents

+ Expand all

- + Data Sheets
- + Product Brief
- + Application Notes
- + Product Qualification Report
- + Product Brochure
- + Product Selection Guide

## Order

Sales Product Name	IPT60R145CFD7
OPN	IPT60R145CFD7XTMA1
Product Status	active and preferred
Infineon Package name	PG-HSOF-8
Standard Package name	
Order online	<a href="#">Buy online</a>
Completely lead free	yes
Halogen free	yes
RoHS compliant	yes
Packing Size	2000
Packing Type	TAPE & REEL
Moisture Level	1
Moisture Packing	NON DRY

## Tools & Software

- + Tool Brief

## Simulation

- + Simulation Models

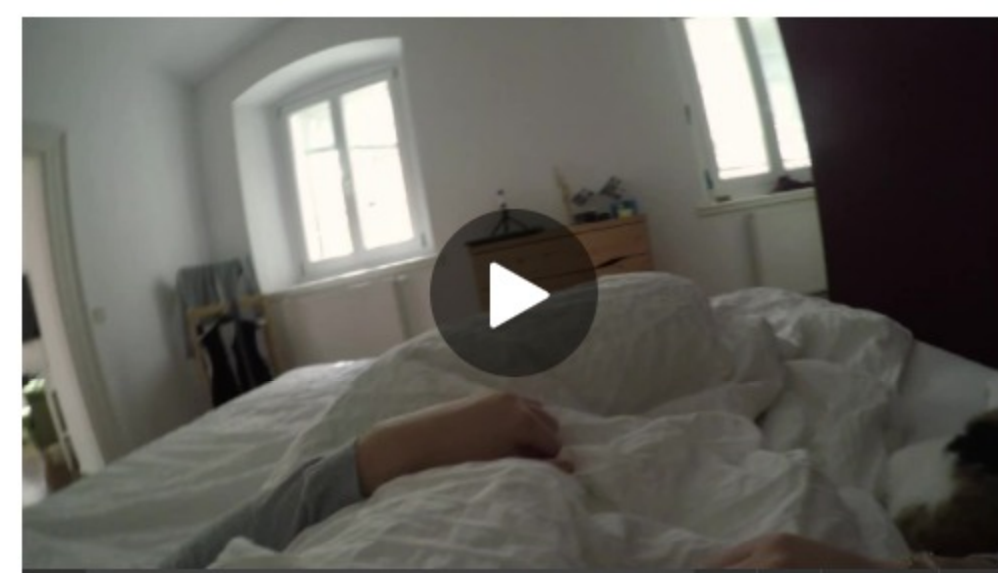
## Videos

CoolMOS™ 7 SJ MOSFETs – in the heart of power



CoolMOS™ 7 is the latest generation of high voltage superjunction MOSFETs from Infineon, setting new standards for energy efficiency, power density and ease-of-use. Watch this video to learn more about CoolMOS™ 7 SJ MOSFETs. [www.infineon.com/coolmos](http://www.infineon.com/coolmos)

600 V CoolMOS™ CFD7 SJ MOSFET – Infineon's answer to resonant topologies



CoolMOS™ CFD7 is Infineon's latest high voltage SJ MOSFET technology with integrated fast body diode. It is the ideal choice for resonant high power applications More Information <http://www.infineon.com/CFD7>

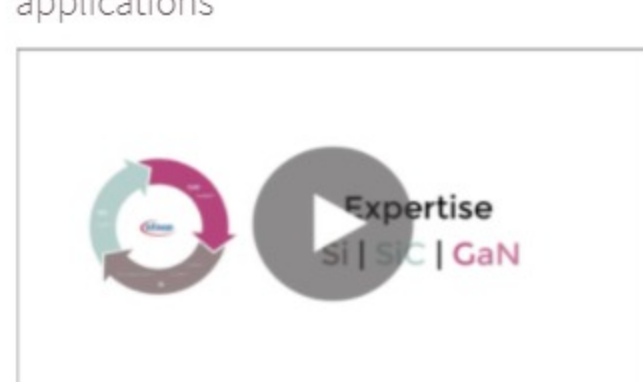
## Training

600V CoolMOS™ CFD7 superjunction MOSFET



> Watch eLearning

Si | SiC | GaN Positioning in ACDC applications



Infineon offers trusted expertise in all 3 main power semiconductor technologies. Check out how to position them in ACDC applications!

> Watch eLearning

## Quality



## Support

Search the FAQs! Enter your search terms...

Top 6 FAQs. Use the search bar above to show more!

<p><b>I need FIT data for my product. How can I get access to it?</b></p> <p>In order to get access to product FIT (failure in time) data, please contact our support center at <a href="https://www.infineon.com/support">https://www.infineon.com/support</a></p>	<p><b>Technical Support</b></p> <p>In order to enable us to process your inquiry as efficiently as possible and ensure your case is duly reported, we kindly ask you to submit your request via the following support form...</p> <p><a href="#">+ Read more</a></p>	<p><b>Partner Finder for support, software, hardware, dev tools, services</b></p> <p>Infineon's partners offer products and services that complement our semiconductor device solutions to accelerate your development efforts and time to market....</p> <p><a href="#">+ Read more</a></p>
<p><b>Package information</b></p> <p>The package information is available on our homepage at <a href="https://www.infineon.com/packages">https://www.infineon.com/packages</a>. Please note, that they are divided into the subcategories "Leaded and through-hol...</p> <p><a href="#">+ Read more</a></p>	<p><b>Notes on processing</b></p> <p>Information regarding reflow profile, soldering temperature, soldering profile and further processing notes for most of the discrete products are mentioned in the Application Note....</p> <p><a href="#">+ Read more</a></p>	<p><b>Design-in support</b></p> <p>We offer design-in support for your application. You can find the Infineon Solution Finder at <a href="https://www.infineon.com/solutionFi...">https://www.infineon.com/solutionFi...</a></p> <p><a href="#">+ Read more</a></p>

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