



SiC Schottky Diodes thinQ!TM

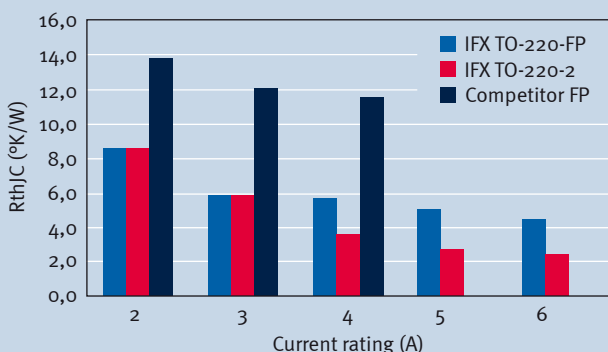
Second Generation now available in TO-220 FullPAK

High efficiency and thermal performance combine in a full isolated solution

The new FullPAK solution combines the high electrical performance standards of Infineon second generation SiC Schottky diodes and the advantages of a full isolated package, without significant impact on thermal behavior compared to standard TO-220 solutions.

The patented diffusion soldering technique enables to consistently reduce the “Chip-to-leadframe” thermal resistance and positions Infineon FullPAK products as best-in-class performance. Additionally, Infineon offers the industry’s broadest portfolio in this package with current ratings up to 6A.

Comparison of the thermal resistance between standard IFX TO-220 and TO-220 FullPAK, and available competition FullPAK products:



The graph shows the same junction-case thermal resistance for IFX products at 2A and 3A, and slightly higher values for the other current ratings. This small difference is in general compensated on the final design assembly due to the need of an isolation foil for the standard TO-220 package. A clear advance on competition (only products up to 3A available) is possible thanks to IFX patented diffusion soldering.

Applications

- SMPS e.g. CCM PFC
- LCD, PDP
- Lighting
- UPS, Solar applications
- Motor drives

Features and benefits

- Thermal behavior comparable to non-isolated package thanks to Infineon diffusion soldering
- Best thermal performance for full-pack solutions
- Comparable price to non isolated package
- Mounting without isolating bushing and foil



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SiC thinQ!TM TO-220 FullPAK Product Portfolio

Voltage (V)	IF (A)	RTH JC (°K/W)	Product	Status
600	2	8,5	IDVo2S6oC	in production
600	3	5,9	IDVo3S6oC	in production
600	4	5,6	IDVo4S6oC	in production
600	5	5	IDVo5S6oC	in production
600	6	4,5	IDVo6S6oC	in production

Infineon delivers innovative high-performance solutions with best-in-class technologies help saving energy and reduce pollution. Our products are the basis for intelligent and optimal use of energy resources and are suited to meet the always rising expectations of customers and institutions in terms of energy efficiency.

Infineon SiC Schottky diode portfolio can concretely help meeting such demands and make your products fulfill the more and more required certification standards such as ENERGY STAR.



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