Product brief

OptiMOS™ in TO-220 FullPAK

Optimized for consumer applications

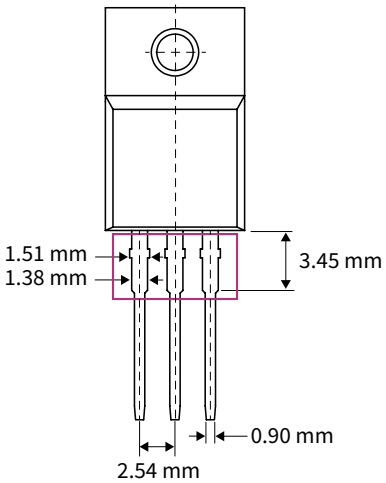
Infineon's power MOSFETs are designed to meet the requirements for improved system efficiency while reducing system cost. The products are using latest silicon technology, featuring low on-state resistance $R_{DS(on)}$ and improved figures of merit (FOM) compared to alternative devices.

OptiMOS™ in TO-220 FullPAK is Infineon's newest portfolio extension targeting adapter, gaming, desktop and TV applications. The new MOSFETs offer an optimized price/performance ratio due to a cost-effective package in combination with a leading, reliable and mature silicon technology.

The new TO-220 FullPAK portfolio features increased power density, as well as improved efficiency, therefore, it is the optimal solution for the synchronous rectification. In addition, less paralleling is required due to the low $R_{DS(on)}$ which contributes to a reduction of the overall system cost.

TO-220 FullPAK is an isolated package with no need for electrical isolation material, that is normally used in TO-220 packages. This results in a reduction of heat generation within the application.

TO-220 FullPAK



Key features

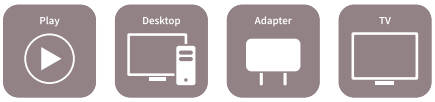
- Low voltage overshoot
- Low on-state resistance ($R_{DS(on)}$)
- No need for electrical isolation material which is normally used in TO-220 packages

Key benefits

- Less paralleling required
- Generated heat is not diverted to the printed circuit board
- Less heat generation
- Fits TO-220 footprint

Key applications

- Adapter
- Gaming
- Desktop
- TV



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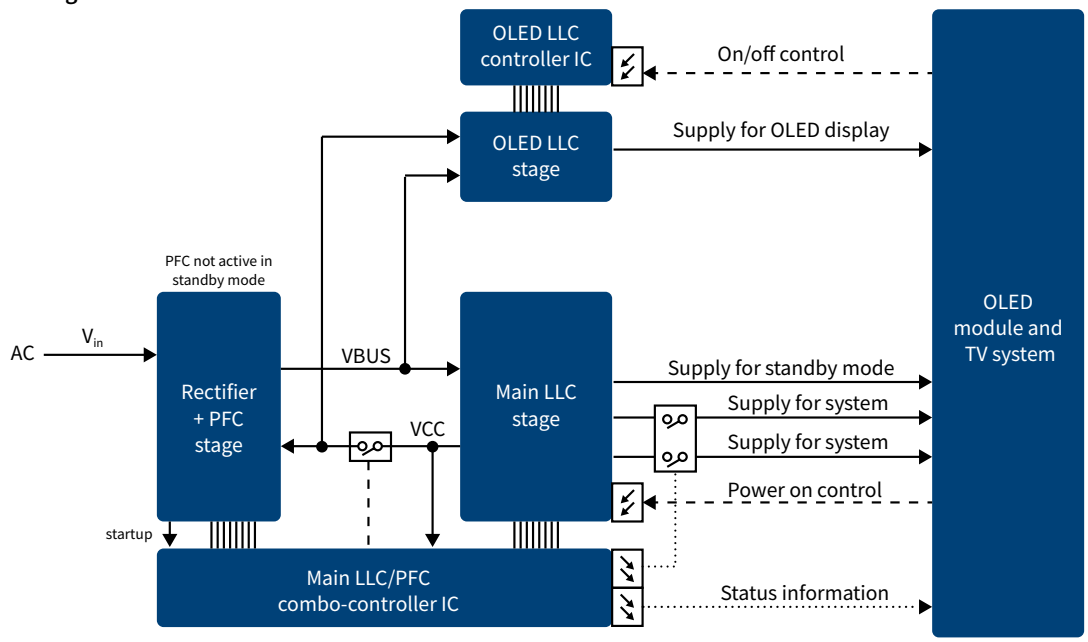
Application diagram



Product portfolio

Product family	V_{DS} (V)	$R_{DS(ON)}$ max. @V_{GS}=10 V (mΩ)	Part number	Ordering part number
OptiMOS™ 3	40	2.8	IPA028N04NM3S	IPA028N04NM3SXKSA1
OptiMOS™ 5	60	2.9	IPA029N06NM5S	IPA029N06NM5SXKSA1
		4.0	IPA040N06NM5S	IPA040N06NM5SXKSA1
		6.0	IPA060N06NM5S	IPA060N06NM5SXKSA1
	80	4.0	IPA040N08NM5S	IPA040N08NM5SXKSA1
		5.2	IPA052N08NM5S	IPA052N08NM5SXKSA1
	100	5.0	IPA050N10NM5S	IPA050N10NM5SXKSA1
		8.3	IPA083N10NM5S	IPA083N10NM5SXKSA1
OptiMOS™ 3	100	12.6	IPA126N10NM3S	IPA126N10NM3SXKSA1
	200	32.0	IPA320N20NM3S	IPA320N20NM3SXKSA1
	250	60.0	IPA600N25NM3S	IPA600N25NM3SXKSA1

Published by
Infineon Technologies Austria AG
9500 Villach, Austria

Document number: B115-I0917-V1-7600-EU-EC-P
Date: 11 / 2019

Additional information
For further information on technologies, our products, the application of our products, delivery terms and conditions and/or prices, please contact your nearest Infineon Technologies office (www.infineon.com).

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