

Product brief

OptiMOS™ p-channel MOSFETs 60 V family

Infineon's next generation of p-channel products

Infineon offers high-performance products with the best price/performance ratio in the industry by using cost-effective packages and a leading, reliable and mature silicon technology.

The OptiMOS™ p-channel MOSFETs simplify the design complexity in medium and low power applications. Their easy interface to microcontroller unit (MCU), fast switching and avalanche ruggedness make them suitable for high quality demanding applications. OptiMOS™ p-channel MOSFETs improve efficiency at low loads due to low gate charge (Q_g). The products are available in logic and normal level featuring a wide on-resistance ($R_{DS(on)}$) range.

The new products are good alternatives or replacements to exiting p-channel products and enable designers to improve performance and cost of their bill of material.

Infineon's OptiMOS™ technology combined with the small signal and power MOSFET packages are optimized for a variety of applications and circuits, such as low voltage drives, linear battery charger, battery protection, load switches, DC-DC converters, reverse polarity protection and many more.

Infineon's new OptiMOS™ p-channel MOSFETs 60 V are available in 4 different packages:

- > Small signal packages: SOT-23 and SOT-223
- > Power packages: DPAK and D²PAK

Key features

- > $V_{BRDSS} = -60\text{ V}$
- > Available in 4 different packages
- > Wide $R_{DS(on)}$ range
- > Normal level and logic level availability

Key benefits

- > Fast switching
- > Avalanche ruggedness
- > Easy interface to MCU
- > Improved efficiency at low loads due to low Q_g
- > Reduced design complexity
- > Energy efficiency
- > Industry standard packages

Target applications

- > Battery management
- > Load switch
- > Reverse polarity protection

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Product portfolio

V_{BRDSS}	Package	Part number	$R_{DS(on)}$ max. @ $V_{GS} = 10\text{ V}$ [mW]	Normal level (NL) Logic level (LL)	
Best fit for industrial applications					
-60 V	D ² PAK	IPB110P06LM	11	LL	
		DPAK	IPD380P06NM	38	NL
		IPD650P06NM	65	NL	
		IPD900P06NM	90	NL	
		IPD25DP06LM	250	LL	
		IPD25DP06NM	250	NL	
		IPD40DP06NM	400	NL	
	SOT-223		ISP650P06NM	65	NL
			ISP12DP06NM	125	NL
			ISP25DP06LM	250	LL
			ISP25DP06NM	250	NL
			ISP75DP06LM	750	LL
	SOT-23		ISS17EP06LM	1700	LL
			ISS55EP06LM	5500	LL
Best fit for consumer applications					
-60 V	SOT-223	ISP13DP06NMS	130	NL	
		ISP25DP06LMS	250	LL	
		ISP26DP06NMS	260	NL	

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