

# DFN0606 MOSFETs: efficiency in the smallest packages

Getting more from less is the mantra in mobile and portable applications, especially wearables. By using the most efficient switching options available, designers can get more room to embed functionality while minimising battery drain. The release of Nexperia's new small-signal MOSFETs in the ultra-small DFN0606, delivers significant space savings with the lowest  $R_{DS(on)}$ .

The latest generations of [smartphones](#), [smartwatches / fitness trackers](#), [earbuds](#) and [GPS trackers](#) continue to push technology boundaries. Of course, one thing they all have in common is an extreme lack of space to pack in all the functionality we want as consumers and a demand for ever longer gaps between battery charges. To keep pace with the latest innovations in wearables, designers are constantly under pressure to find the most efficient solutions for every function.

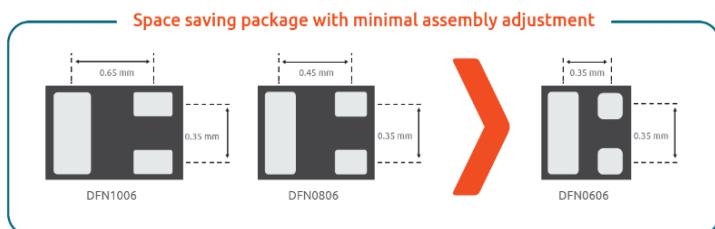
## Ultra-tiny MOSFETs with the lowest $R_{DS(on)}$

When it comes to a range of low-voltage switches, small-signal MOSFETs are an ideal option, and Nexperia's latest [PMH family of 20 / 30 V, N- and P-channel devices in the ultra-small DFN0606](#) lead the way in performance. They deliver the lowest  $R_{DS(on)}$  in a 0.62 x 0.62 mm footprint. With the advanced process technology used in these devices, in terms of  $R_{DS(on)}$  they easily compete with many competitive devices in larger packages (DFN0806 and DFN1006).

In addition to the lowest  $R_{DS(on)}$ , they offer excellent ESD performance and can operate with a threshold voltage of just 0.7 V, vital for portable applications with low drive voltage. Nexperia's DFN0606 portfolio also has the same 0.35 mm pitch as the DFN1006 package, simplifying design and manufacturing while gaining the performance and space benefits. And with our high-volume production capacity, we can quickly upscale for the most demanding of markets.

## An old favourite gets a makeover

Along with the PMH family, Nexperia is also releasing the [NX7002BK](#) in the DFN0606 package. By offering this proven 60 V, N-channel Trench MOSFET in the ultra-small housing gives designers the option to choose the same performance in a wide range of footprints and package styles. From the leaded SOT23, SOT323 and SOT363 right through to the discrete, flat, no-leads DFN1010, DFN1006 and now DFN0606.



New DFN0606 can replace DFN1006, DFN0806 and DFN0606 types in the market

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