

PerFET™ POWER MOSFET 40V Family

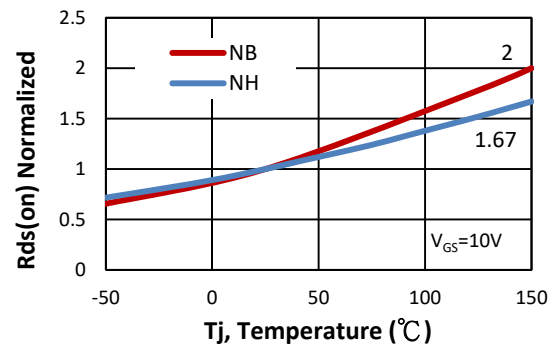
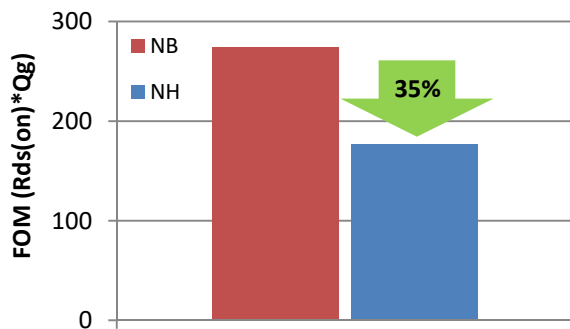
Taiwan Semiconductor introduces new 40V PerFET™ (NH Series) power MOSFETs with PDFN33 package. The new PerFET™ MOSFET built on proprietary device structures and processes that enable exceptionally low on-state resistance and switching figure-of-merit (FOM - R*Q). The achievement of 35% FOM reduction compared to our previous technology (NB Series) puts this portfolio at the industry leading edge of performance. The value of RDS(on) at temperatures of -55°C to 150°C presented less variation due to its lower temperature coefficient (K). This initial 40V N-channel platform includes options for both standard (10V) and logic level (5V) gate-drive requirements while preserving rugged safe-operating resistance to switching voltage transients and avalanche concerns in switching applications.

FEATURES

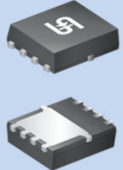
- Ultra-low On-resistance
- 100% UIS and Rg tested
- RoHS Compliant
- Halogen-Free according to IEC 61249-2-21

APPLICATIONS

- SMPS
- DC-DC Converters
- Server and Telecom
- Motor Drivers



Product portfolio

Package	Part Number	BV _{DSS} (V)	R _{DS(ON)} max. 10V (mΩ)	R _{DS(ON)} max. 4.5V (mΩ)	V _{GSTH} (V)	Q _G typ Vgs=10V (nC)
	TSM110NB04LCV	40	11	16	1 – 2.5	24
	TSM150NB04LCV	40	15	19	1 – 2.5	19
	TSM056NH04CV NEW	40	5.6	-	2.4 – 3.6	29
	TSM056NH04LCV NEW	40	5.6	7.8	1.4 – 2.2	33
	TSM070NH04CV NEW	40	7	-	2.4 – 3.6	21
	TSM070NH04LCV NEW	40	7	9.8	1.4 – 2.2	24