

PerFET™

80V & 100V POWER MOSFET

Taiwan Semiconductor introduces PerFET™ 80V and 100V technology in the PDFN56U (5mm x 6mm) single and dual packages for high power, high switching frequency and high-performance requirement automotive applications. A portfolio of 18 items, including both normal-level (10V) and logic-level (5V) gate drive types, enables customers to select the best-fit product for their design. All of this enables the Best-in-class FOM ($R_{DS(on)} * Q_g$) and Performance in the market.

The PDFN56U wettable flank package offers improved solder joint quality and enhanced AOI accuracy. Additionally, it is highly footprint-compatible with the majority of 5mm x 6mm packages on the market.



Official Website



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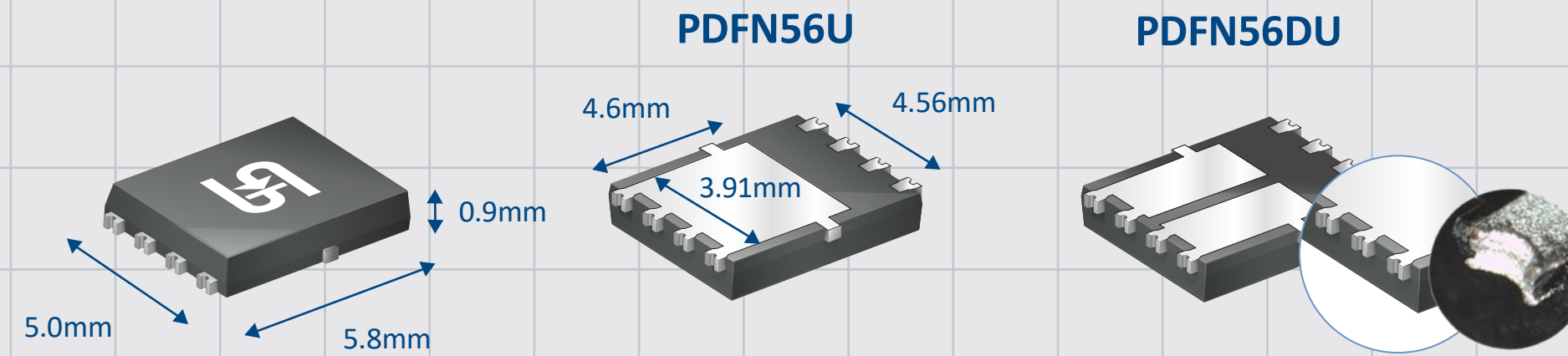


LinkedIn

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PACKAGE

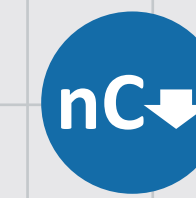


Wettable flank leads improve solder joint reliability and AOI's accuracy during PCB assembly process.

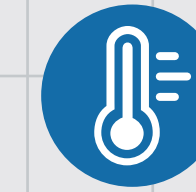
SPECIFICATION

Part Number	V _{DS} (V)	R _{DS(ON)} max. 10V (mΩ)	R _{DS(ON)} max. 4.5V (mΩ)	ID Tc=25°C (A)	V _{GSTH} (V)	Q _G typ V _{gs} =10V (nC)	Package	
TQM048NH10LCR RLG	100	4.8	6.1	100	1.4~2.2	47	PDFN56U	
TQM048NH10CR RLG		4.8	-	100	2.4~3.6	35		
TQM075NH10LCR RLG		7.5	9.4	100	1.4~2.2	36		
TQM075NH10CR RLG		7.5	-	100	2.4~3.6	22		
TQM100NH10LCR RLG		10	12	81	1.4~2.2	25		
TQM100NH10CR RLG		10	-	72	2.4~3.6	20		
TQM170NH10LCR RLG		17	20	72	1.4~2.2	17		
TQM170NH10CR RLG		17	-	50	2.4~3.6	11		
TQM240NH10LCR RLG		24	29	50	1.4~2.2	9.3		
TQM240NH10CR RLG		24	-	34	2.4~3.6	8.1		
TQM250NH10LDCR RLG		25	30	34	1.4~2.2	10		PDFN56UD
TQM250NH10DCR RLG		25	-	31	2.4~3.6	8.4		
TQM058NH08LCR RLG	80	5.8	8.1	100	1.4~2.2	35	PDFN56U	
TQM063NH08CR RLG		6.3	-	100	2.4~3.6	27		
TQM130NH08LCR RLG		13	18.2	54	1.4~2.2	17		
TQM145NH08CR RLG		14.5	-	52	2.4~3.6	13		
TQM210NH08LDCR RLG		21	29.4	33	1.4~2.2	11		PDFN56UD
TQM230NH08DCR RLG		23	-	31	2.4~3.6	9.1		

FEATURES



LOWER PARASITIC CAPACITANCE



LOWER TEMPERATURE COEFFICIENT

The R_{DS(ON)} value at temperatures of

-55 °C ~ 175 °C

presented less variation.



AUTOMOTIVE QUALIFIED **AEC-Q101**



EXCELLENT FOM ($Q_g \times R_{DS(ON)}$)

APPLICATIONS



AUTOMOTIVE



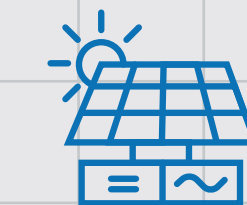
MOTOR



TELECOM



DC/DC CONVERTER



MICROINVERTER



POWER SUPPLY



TAIWAN SEMICONDUCTOR

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