

# SOIゲートドライバー最新ラインナップのご紹介! ~全てのスイッチにはドライバーが必要です~

ゲートドライバーのシェアトップクラスを誇るインフィニオン社のシリコンオンインシュレーター (SOI) テクノロジーは、ブートストラップダイオードを内蔵、負の過渡電圧スパイクに耐える堅牢性など、業界最高クラスのレベルシフト技術を備えています。また、レベルシフトの電力損失が低く、デバイススイッチング時の電力消費を極力抑制することが出来ます。本ゲートドライバー製品シリーズは先進的なプロセスを経て設計されているため、お客様の希望する高電圧および低電圧回路をモノリシックに構成することが可能です。

## ターゲットアプリケーション

- エアコンディショナー、冷蔵庫、洗濯機、ミシン
- 調理器、掃除機、空気清浄機、循環ポンプ
- サーボ(ロボティクス)
- 電動工具
- LED照明



## SOIゲートドライバー ポートフォリオ

	Voltage Class [V]	$I_{O+} / I_{O-}$ typ. [mA]	UVLO on/off typ. [V]	Prop delay off/on typ. [ns]	Base PN	Enable	Fault reporting	Integrated bootstrap diode	Over-current protection	Programmable dead time	Separate pin for logic ground	Shoot-through protection	Shutdown	Packages					
Half-bridge	650	2500/2500	9.1/8.2	200/200	2ED2182S06F			✓				✓		DSO-8					
					2ED21824S06J			✓			✓	✓	✓	✓	DSO-14				
					2ED2183S06F			✓						✓		DSO-8			
					2ED21834S06J			✓					✓	✓	✓	DSO-14			
					2ED2184S06F			✓							✓	✓	DSO-8		
					2ED21844S06J			✓					✓	✓	✓	✓	DSO-14		
					2ED2108S06F			✓								✓	✓	DSO-8	
					2ED21084S06J			✓						✓	✓	✓	✓	DSO-14	
					2ED2109S06F			✓									✓	✓	DSO-8
					2ED21094S06J			✓						✓	✓	✓	✓	DSO-14	
					2ED21091S06F			✓						✓		✓	✓	DSO-8	
					2ED2304S06F		9.1/8.3	300/310				✓					✓	DSO-8	
					2EDL05N06PF/J		9.1/8.3	300/310				✓					✓	DSO-8 DSO-14	
					High-side and low-side	600	360/700	12.5/11.6	400/420	2EDL05106PF/J			✓				✓		DSO-8 DSO-14
9.1/8.3	300/310	2EDL23N06PJ	✓	✓				✓	✓		✓	✓	DSO-14						
12.5/11.6	400/420	2EDL23106PJ	✓	✓				✓	✓		✓	✓	DSO-14						
9.1/8.3	300/310	2ED2106S06F						✓						DSO-8					
Three-phase	650	290/700	9.1/8.2	200/200	2ED21064S06J			✓						DSO-14					
					2ED2181S06F			✓							DSO-8				
	600	360/700	12.5/11.6	400/420	2EDL05106BF			✓						DSO-8					
					6EDL2230S12	✓	✓	✓	✓	✓		✓	✓	DSO-24					
	1200	350/650	11.4/10.4	600/600	6EDL04106(NC,NT,PT)	✓	✓	✓	✓	✓		✓	✓	DSO-28 WB TSSOP-28					
					6EDL04N06P(C,T)	✓	✓	✓	✓	✓		✓	✓	DSO-28 WB					
600	165/375	11.7/9.8	490/530	6EDL04N02PR	✓	✓	✓	✓	✓		✓	✓	TSSOP-28						
				6EDL04N02PR	✓	✓	✓	✓	✓		✓	✓	TSSOP-28						

\*different specification than SOI product

## エアコンディショナーPFC回路向け推奨ドライバー&スイッチ

3~4KWクラスの家庭用エアコンを対象としています。インフィニオン社ではゲートドライバーに加え、MOSFET, IGBT等のパワースイッチもご用意しています。

Topology	Low-side Gate Driver	Gate Driver Features / Benefits	Recommended Switch (es)								
			Sales Part	Switch Type	Voltage						
Boost PFC	1ED44176N01F	Single-channel low-side gate driver with integrated overcurrent protection in small PG-DSO8 package • Over-current detection with positive voltage input • 0.5V Over-current threshold with accurate $\pm 5\%$ tolerance at 25°C • Single pin for fault output and enable • Programmable fault clear time • Under voltage lockout • CMOS Schmitt-triggered inputs • 3.3V, 5V and 15V input logic compatible • Output in phase with input • Separate logic and power ground • 2kV ESD HBM	IKW30N65H5	TRENCHSTOP™ 5 IGBT+RAPID 1 Diode	650V						
			IKW40N65H5								
			IKW50N65H5								
			Compressor or Totem Pole PFC	2ED218xS06F or 2ED218x4S06J	- Integrated BSD for reduced BOM cost and PCB size - Greater than -100V negative VS for increased robustness / reliability and faster Time to Market - 50% lower level shift losses for increased efficiency - 2.3A / 2.8A $I_{O+} / I_{O-}$ current drive	IKW30N60H3	TRENCHSTOP™ 3 IGE	650V			
						IKW40N60H3					
						IKW50N60H3					
						Compressor or Totem Pole PFC	2ED218xS06F or 2ED218x4S06J	- Integrated BSD for reduced BOM cost and PCB size - Greater than -100V negative VS for increased robustness / reliability and faster Time to Market - 50% lower level shift losses for increased efficiency - 2.3A / 2.8A $I_{O+} / I_{O-}$ current drive	IP(W/Z)65R019C7	CoolMOS™ C7 superjunction MOSFET	650V
									IP(W/Z)65R045C7		
									IP(W/Z)65R065C7		
									IP(W/Z)65R095C7		
Compressor or Totem Pole PFC	2ED218xS06F or 2ED218x4S06J	- Integrated BSD for reduced BOM cost and PCB size - Greater than -100V negative VS for increased robustness / reliability and faster Time to Market - 50% lower level shift losses for increased efficiency - 2.3A / 2.8A $I_{O+} / I_{O-}$ current drive	IPW65R125C7	TRENCHSTOP™ 5 IGBT+RAPID 1 Diode	650V						
			IPW65R190C7								
			IKW30N60H3			TRENCHSTOP™ 3 IGE	600V				
IKW40N60H3											
Compressor or Totem Pole PFC	2ED218xS06F or 2ED218x4S06J	- Integrated BSD for reduced BOM cost and PCB size - Greater than -100V negative VS for increased robustness / reliability and faster Time to Market - 50% lower level shift losses for increased efficiency - 2.3A / 2.8A $I_{O+} / I_{O-}$ current drive	IKW50N60H3								