

## Common CoolMOS™ applications and topologies

## Common CoolMOS™ applications and topologies





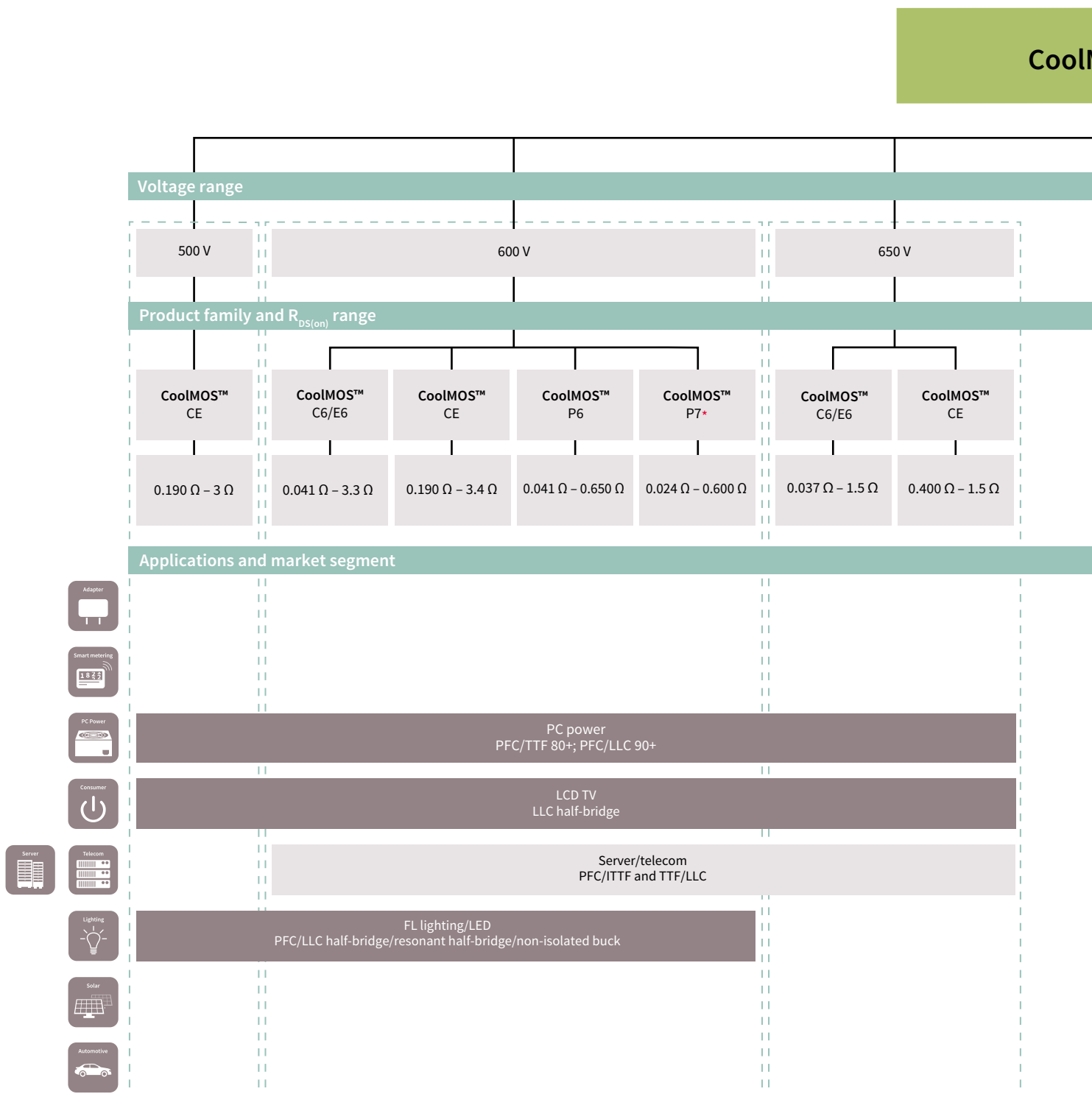
The revolutionary CoolMOS™ power MOSFET family sets new standards in the field of energy efficiency.

# Content

Price/performance series	4
Best-in-class efficiency series	6
Fast body diode series	7
CoolMOS™ for high and low power	8
CoolMOS™ portfolio	9
EiceDRIVER™ application guide	16
Single and dual-channel EiceDRIVER™ families	17

# Price/performance

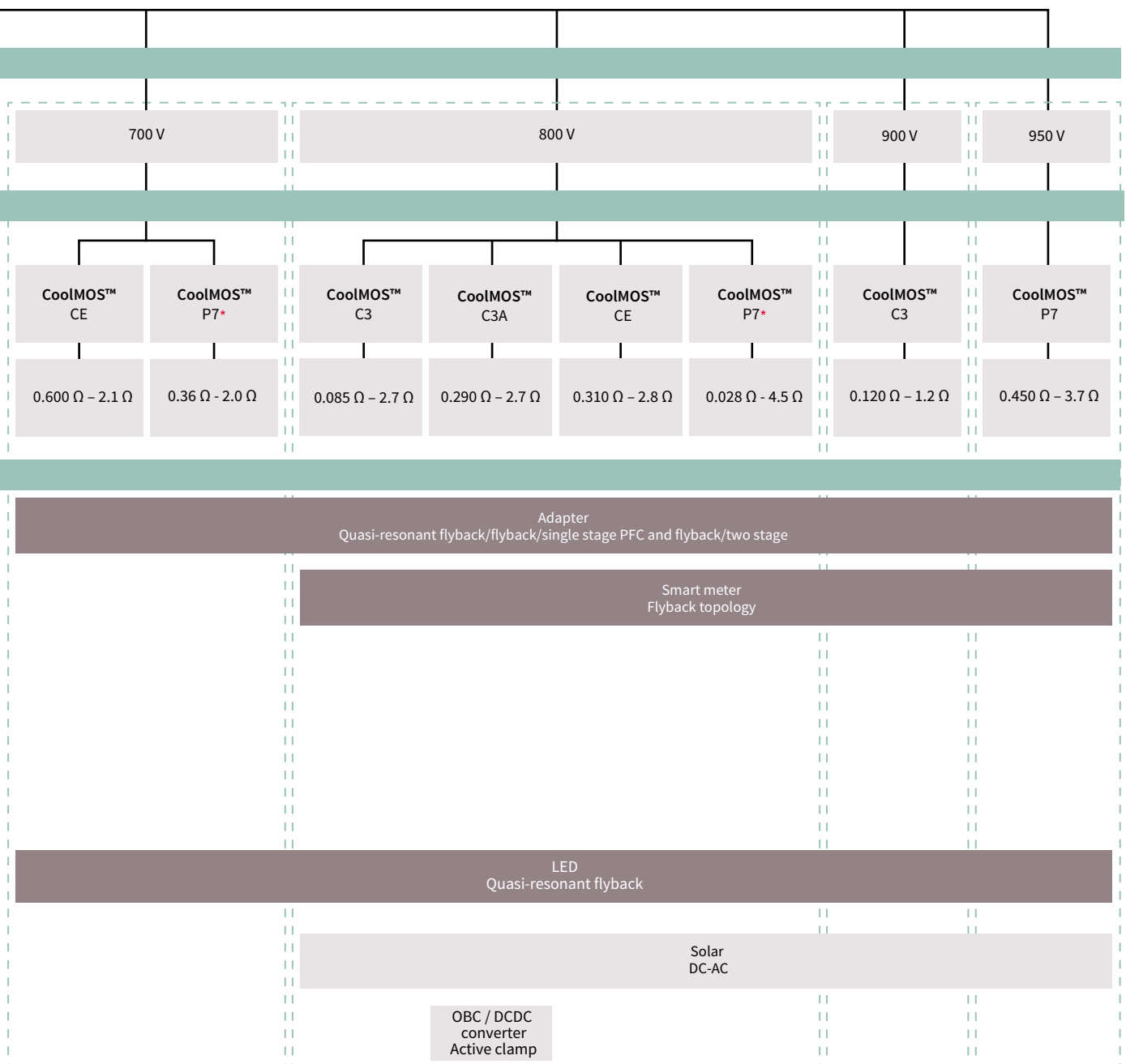
Optimum performance in the following more cost-sensitive applications and topologies



Drive your CoolMOST™ to best performance with a cool EiceDRIVER™

For complete product portfolio, check our homepage: [www.infineon.com/coolmos](http://www.infineon.com/coolmos)

MOS™



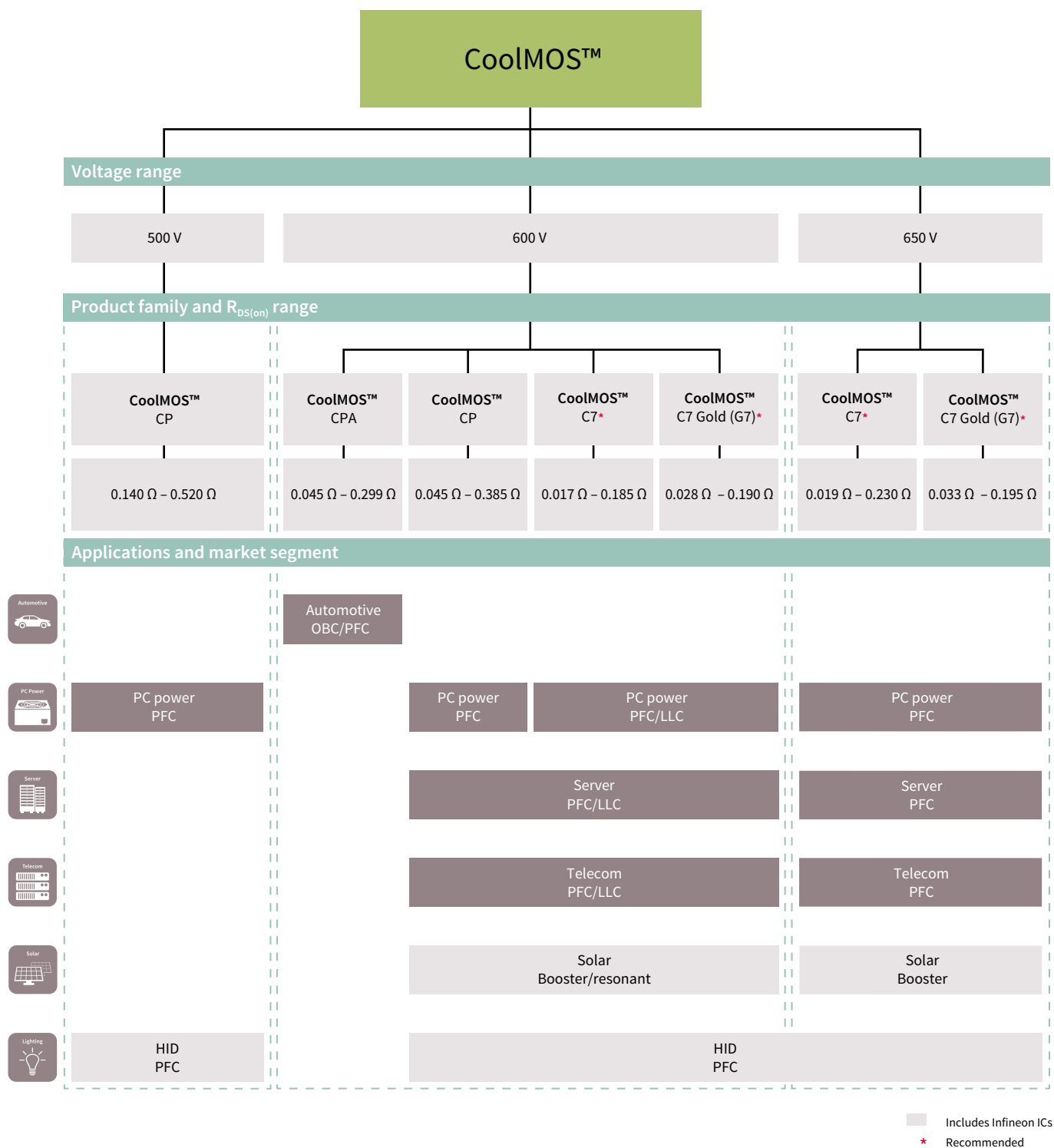
Includes Infineon ICs

\* Recommended (for 600 V, CoolMOS™ P7 is recommended from 0.037 Ω to 0.6 Ω and CoolMOS™ C6 is recommended above 0.6 Ω)

# Best-in-class efficiency and fast body diode series

Best-in-class efficiency

Highest performance CoolMOST™ recommended for the following applications and topologies

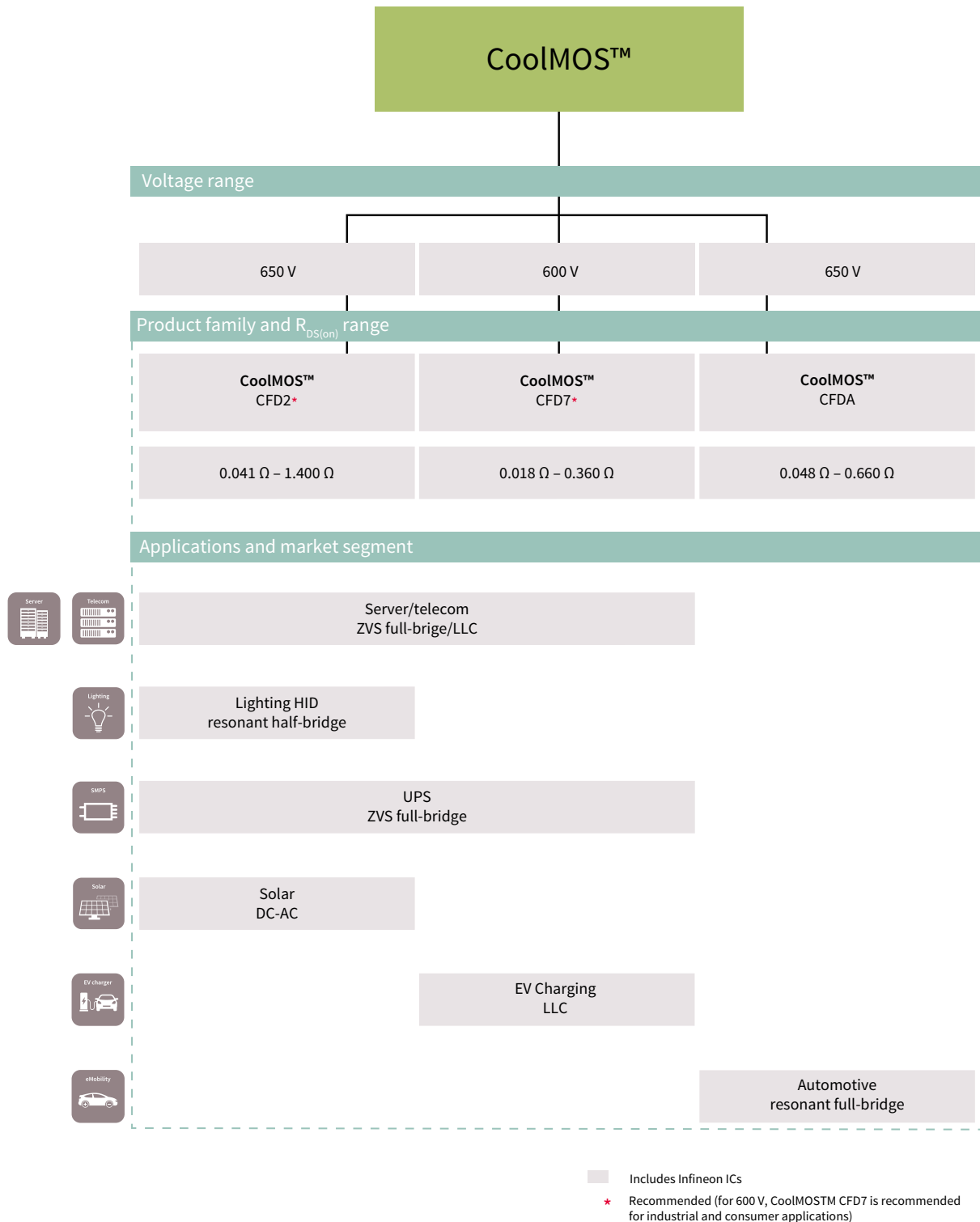


Drive your CoolMOST™ to best performance with a cool EiceDRIVER™

[www.infineon.com/coolmos](http://www.infineon.com/coolmos)

## Fast body diode series

Optimum CoolMOS™ for resonant switching topologies in the following applications

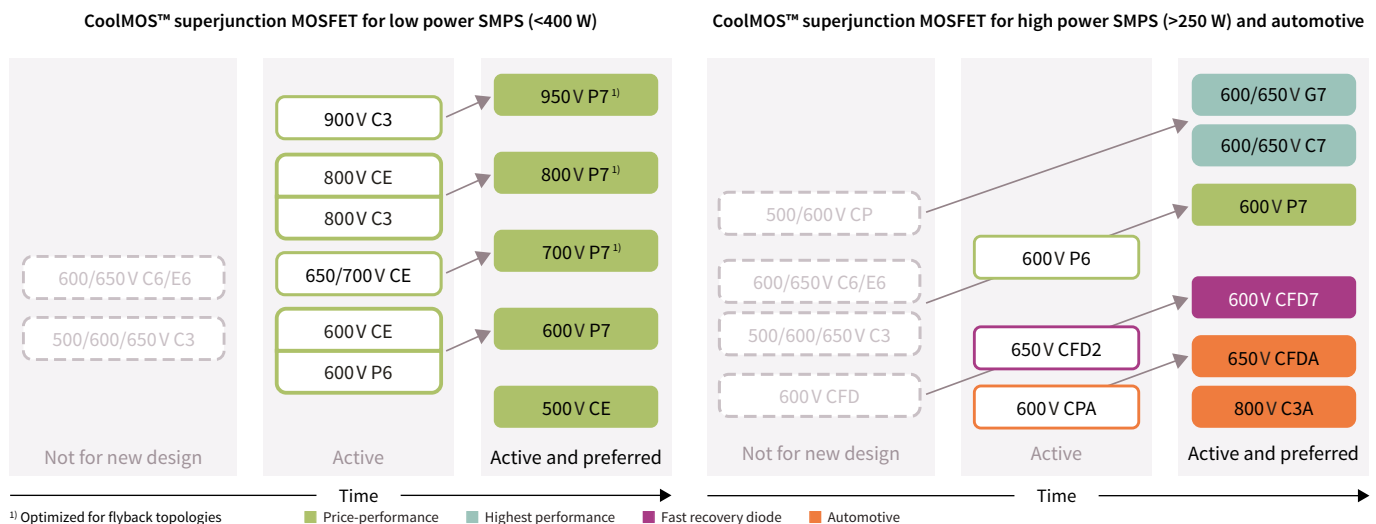


Drive your CoolMOS™ to best performance with a cool EiceDRIVER™  
[www.infineon.com/coolmos](http://www.infineon.com/coolmos)

# CoolMOST™ SJ MOSFETs

Trusted leader in high voltage MOSFETs

The revolutionary CoolMOST™ power MOSFET family sets new standards in the field of energy efficiency. Our CoolMOST™ products offer a significant reduction of conduction, switching and driving losses, and enable high power density and efficiency for superior power conversion systems.



High voltage superjunction MOSFETs address applications, such as smartphone/tablet chargers, notebook adapters, LED lighting, as well as audio and TV power supplies. Customers are increasingly replacing standard MOSFETs with superjunction MOSFETs to benefit from higher efficiency and less power consumption for the end users. CoolMOST™ P7 sets a new benchmark by offering high performance and competitive price all at once.

Also for high power applications such as server, telecom, PC power, solar, UPS or industrial, Infineon's latest CoolMOST™ 7 superjunction MOSFET series with C7, G7, CFD7 and P7 product families offer what you need - from highest efficiency to best price performance. Infineon has meanwhile also complemented the portfolio with first CoolGa™ e-mode HEMTs products to further optimize efficiency and system cost.







Infineon's CoolMOST™ superjunction MOSFET offering is complemented by the automotive qualified series 600 V CPA, 650 V CFDA and 800 V C3A. Gain your momentum in the rapidly growing on-board charger and DC-DC converter markets with our excellent performing automotive series with proven outstanding quality standards that go well beyond AEC Q101.



# CoolMOS™ product list

	CoolMOS™ series	Launch date	Position/characteristics	Applications
Price/performance	C3	2001	General purpose, easy-to-use series	Cost/performance PFC, PWM hard switching topologies and soft switching resonant topologies
	P6	2012	Price/performance technology with the highest efficiency	Price/performance PFC PWM hard switching and soft switching resonant topologies
	CE	2012	Cost optimized platform conceived for price sensitive applications such as consumer (LCD, LED, PDP TV), lighting and PC power	Price/performance PFC and PWM stage in LLC topologies (resonant switching) and TTF topologies (hard switching)
	600 V P7	2017	Price/performance technology with the highest efficiency	Price/performance PFC PWM hard switching and soft switching resonant topologies
	700 V P7	2017	Best-in-class performance, state of the art in ease of use and designed for consumer applications	Price/performance technology for low power SMPS market optimized for flyback topologies
	800 V P7	2017		
	950 V P7	2018		
Fast body diodes series	CFD2	2011	Replacement for CFD series Improved cost performance, light load efficiency and ease of use in EMI and low voltage overshoot	Soft switching resonant topologies with hard commutation requirements requiring a fast body diode
	CFD7	2017	Successor to CFD2 offering improved efficiency, BiC $Q_{rr}$ and enabling the highest power density.	Soft switching resonant topologies with hard commutation requirements requiring a fast body diode
	CFDA	2012	Automotive qualified fast body diode part. Same performance as CFD2	Unidirectional and bidirectional DC-DC converter, battery charger, HID lighting
Best-in-class	CP	2005	Aimed at high efficiency hard switching topologies	High efficiency PFC
	650 V C7	2012	Best-in-class $R_{DS(on)}$ /package, for hard switching topologies such as PFC with highest efficiency	Best-in-class efficiency SMPS PFC and solar boost
	600 V C7	2015	Best-in-class $R_{DS(on)}$ /packages, for hard and soft switching topologies such as PFC and high-end LLC	Best-in-class efficiency SMPS PFC/ LLC and solar boost/resonant
	650 V G7	2016	Benefits in efficiency, power density and manufacturing cost reduction with high quality and easy-to-use part	High quality and ease of use for hard switching topologies
	600 V G7	2017	Benefits in efficiency, power density and manufacturing cost reduction with high quality and easy-to-use part	High quality and ease of use for hard switching topologies and excellent performance in resonant topologies such as LLC

## CoolMOS™ portfolio

500 V CoolMOS™ CP				     			
$R_{DS(on)}$ [mΩ]	TO-220	TO-220 FullPAK	TO-247	TO-252 (DPAK)	TO-262 (I <sup>2</sup> PAK)	TO-263 (D <sup>2</sup> PAK)	TO-251 (IPAK Short Lead)
140	IPP50R140CP	IPA50R140CP	IPW50R140CP			IPB50R140CP	
199	IPP50R199CP	IPA50R199CP				IPB50R199CP	
250	IPP50R250CP	IPA50R250CP	IPW50R250CP				
299	IPP50R299CP						
350	IPP50R350CP	IPA50R350CP			IPI50R350CP		
399	IPP50R399CP			IPD50R399CP	IPI50R399CP		
520	IPP50R520CP			IPD50R520CP			IPS50R520CP

500 V CoolMOST™ CE **ACTIVE & PREFERRED**

R <sub>DS(on)</sub> [mΩ]	TO-220	TO-220 FullPAK	TO-247	TO-252 (DPAK)	TO-251 (IPAK)	TO-251 (IPAK Short Lead)	SOT-223	TO-220 FullPAK Narrow Lead
190	IPP50R190CE	IPA50R190CE						
280	IPP50R280CE	IPA50R280CE		IPD50R280CE				
380	IPP50R380CE	IPA50R380CE		IPD50R380CE				
500		IPA50R500CE		IPD50R500CE				IPAN50R500CE
650				IPD50R650CE			IPN50R650CE	
800		IPA50R800CE		IPD50R800CE			IPN50R800CE	
950		IPA50R950CE		IPD50R950CE			IPN50R950CE	
1400				IPD50R1K4CE			IPN50R1K4CE	
2000				IPD50R2K0CE			IPN50R2K0CE	
3000				IPD50R3K0CE			IPN50R3K0CE	

600 V CoolMOST™ CE **ACTIVE**

R <sub>DS(on)</sub> [mΩ]	TO-220 FullPAK	TO-220 FullPAK Wide creepage	TO-247	TO-252 (DPAK)	TO-251 (IPAK)	TO-251 (IPAK Short Lead)	SOT-223	TO-220 FullPAK Narrow Lead
190		IPAW60R190CE						
280		IPAW60R280CE						
380		IPAW60R380CE						
400	IPA60R400CE			IPD60R400CE		IPS60R400CE		
460	IPA60R460CE			IPD60R460CE		IPS60R460CE		
600		IPAW60R600CE						
650	IPA60R650CE			IPD60R650CE		IPS60R650CE		IPAN60R650CE
800				IPD60R800CE		IPS60R800CE		IPAN60R800CE
1000	IPA60R1K0CE			IPD60R1K0CE	IPU60R1K0CE	IPS60R1K0CE	IPN60R1K0CE	
1500	IPA60R1K5CE			IPD60R1K5CE	IPU60R1K5CE	IPS60R1K5CE	IPN60R1K5CE	
2100				IPD60R2K1CE	IPU60R2K1CE	IPS60R2K1CE	IPN60R2K1CE	
3400				IPD60R3K4CE		IPS60R3K4CE	IPN60R3K4CE	

600 V CoolMOST™ P6 **ACTIVE**

R <sub>DS(on)</sub> [mΩ]	TO-220	TO-220 FullPAK	TO-247	TO-247 4-pin	TO-252 (DPAK)	ThinPAK 5x6	ThinPAK 8x8
41			IPW60R041P6				
70			IPW60R070P6	IPZ60R070P6			
99	IPP60R099P6	IPA60R099P6	IPW60R099P6	IPZ60R099P6			
125	IPP60R125P6	IPA60R125P6	IPW60R125P6				
160	IPP60R160P6	IPA60R160P6	IPW60R160P6				
180							IPL60R180P6
190	IPP60R190P6	IPA60R190P6	IPW60R190P6				
210							IPL60R210P6
230		IPA60R230P6					
255							
280	IPP60R280P6	IPA60R280P6	IPW60R280P6				
330/360						IPL60R360P6S	
380		IPA60R380P6			IPD60R380P6		
600		IPA60R600P6			IPD60R600P6		
650						IPL60R650P6S	

600 V CoolMOS™ C7 **ACTIVE & PREFERRED**

R <sub>DS(on)</sub> [mΩ]	TO-220	TO-263 (D <sup>2</sup> PAK)	TO-220 FullPAK	TO-247	TO-247 4-pin	TO-252 (DPAK)	ThinPAK 8x8
17				IPW60R017C7	IPZ60R017C7		
40	IPP60R040C7	IPB60R040C7		IPW60R040C7	IPZ60R040C7		
60	IPP60R060C7	IPB60R060C7	IPA60R060C7	IPW60R060C7	IPZ60R060C7		
65							IPL60R065C7
99	IPP60R099C7	IPB60R099C7	IPA60R099C7	IPW60R099C7	IPZ60R099C7		
104							IPL60R104C7
120	IPP60R120C7	IPB60R120C7	IPA60R120C7	IPW60R120C7			
125							IPL60R125C7
180	IPP60R180C7	IPB60R180C7	IPA60R180C7	IPW60R180C7		IPD60R180C7	
185							IPL60R185C7

600 V CoolMOS™ C7 Gold (G-series) **ACTIVE & PREFERRED**

R <sub>DS(on)</sub> [mΩ]	TO-220	TO-Leadless (TOLL)	TO-220 FullPAK	TO-247	TO-247 4-pin	TO-252 (Double DPAK)	ThinPAK 8x8
28		IPT60R028G7					
50		IPT60R050G7				IPDD60R050G7	
80		IPT60R080G7				IPDD60R080G7	
102		IPT60R102G7				IPDD60R102G7	
125		IPT60R125G7				IPDD60R125G7	
150		IPT60R150G7				IPDD60R150G7	
190						IPDD60R190G7	

600 V CoolMOS™ P7 **ACTIVE & PREFERRED**

Industrial grade



R <sub>DS(on)</sub> [mΩ]	TO-220	TO-220 FullPAK	TO-247	TO-247 4-pin asymmetric leads	TO-252 (DPAK)	TO-220 FullPAK Wide creepage	ThinPAK 8x8	D <sup>2</sup> PAK
24			IPW60R024P7	IPZA60R024P7				
37			IPW60R037P7	IPZA60R037P7				
45			IPW60R045P7	IPZA60R045P7				IPB60R045P7
60	IPP60R060P7	IPA60R060P7	IPW60R060P7	IPZA60R060P7				IPB60R060P7
65							IPL60R065P7	
80	IPP60R080P7	IPA60R080P7	IPW60R080P7	IPZA60R080P7			IPL60R085P7	IPB60R080P7
99	IPP60R099P7	IPA60R099P7	IPW60R099P7	IPZA60R099P7				IPB60R099P7
105							IPL60R105P7	
120	IPP60R120P7	IPA60R120P7	IPW60R120P7	IPZA60R120P7			IPL60R125P7	IPB60R120P7
125								
160	IPP60R160P7	IPA60R160P7						
180	IPP60R180P7	IPA60R180P7	IPW60R180P7	IPZA60R180P7	IPD60R180P7			IPB60R180P7
185							IPL60R185P7	
280	IPP60R280P7	IPA60R280P7			IPD60R280P7			IPB60R280P7
285							IPL60R285P7	
360	IPP60R360P7	IPA60R360P7			IPD60R360P7			IPB60R360P7
365							IPL60R365P7	
600	IPP60R600P7	IPA60R600P7			IPD60R600P7			

600 V CoolMOS™ P7 **ACTIVE & PREFERRED**

Standard grade



R <sub>DS(on)</sub> [mΩ]	TO-220	TO-220 FullPAK	TO-220 FullPAK Narrow lead	TO-247 4-pin	TO-252 (DPAK)	TO-220 FullPAK Wide creepage	ThinPAK 8x8	SOT-223
180		IPA60R180P7S	IPAN60R180P7S		IPD60R180P7S	IPAW60R180P7S		
280		IPA60R280P7S	IPAN60R280P7S		IPD60R280P7S	IPAW60R280P7S		
360		IPA60R360P7S	IPAN60R360P7S		IPD60R360P7S	IPAW60R360P7S		IPN60R360P7S
600		IPA60R600P7S	IPAN60R600P7S		IPD60R600P7S	IPAW60R600P7S		IPN60R600P7S


**600 V CoolMOST™ CFD7** ACTIVE & PREFERRED

R <sub>DS(on)</sub> [mΩ]	TO-220	TO-263 (D <sup>2</sup> PAK)	TO-220 FullPAK	TO-247	TO-247 4-pin	TO-252 (DPAK)	ThinPAK 8x8
18				IPW60R018CFD7			
24				IPW60R024CFD7			
31				IPW60R31CFD7			
40		IPB60R040CFD7		IPW60R40CFD7			
55		IPB60R055CFD7		IPW60R55CFD7			
60							IPL60R060CFD7
70	IPP60R70CFD7	IPB60R070CFD7		IPW60R70CFD7			
75							IPL60R75CFD7
90/95	IPP60R90CFD7	IPB60R090CFD7		IPW60R90CFD7			IPL60R095CFD7
105/115	IPP60R105CFD7	IPB60R105CFD7		IPW60R105CFD7			IPL60R115CFD7
125/140	IPP60R125CFD7	IPB60R125CFD7	IPA60R125CFD7	IPW60R125CFD7			IPL60R140CFD7
145/160	IPP60R145CFD7	IPB60R145CFD7	IPA60R145CFD7	IPW60R145CFD7		IPD60R145CFD7	IPL60R160CFD7
170	IPP60R170CFD7	IPB60R170CFD7	IPA60R170CFD7	IPW60R170CFD7		IPD60R170CFD7	
185							IPL60R185CFD7
210/225	IPP60R210CFD7	IPB60R210CFD7	IPA60R210CFD7			IPD60R210CFD7	IPL60R225CFD7
280	IPP60R280CFD7	IPB60R280CFD7	IPA60R280CFD7			IPD60R280CFD7	
360	IPP60R360CFD7	IPB60R360CFD7	IPA60R360CFD7			IPD60R360CFD7	


**650 V CoolMOST™ CFD2** ACTIVE

R <sub>DS(on)</sub> [mΩ]	TO-220	TO-262 (I <sup>2</sup> PAK)	TO-263 (D <sup>2</sup> PAK)	TO-220 FullPAK	TO-247	TO-252 (DPAK)	ThinPAK 8x8
41					IPW65R041CFD		
80					IPW65R080CFD		
110	IPP65R110CFD		IPB65R110CFD	IPA65R110CFD	IPW65R110CFD		
150	IPP65R150CFD		IPB65R150CFD	IPA65R150CFD	IPW65R150CFD		
165							IPL65R165CFD
190	IPP65R190CFD	IPB65R190CFD	IPB65R190CFD	IPA65R190CFD	IPW65R190CFD		
210							IPL65R210CFD
310	IPP65R310CFD		IPB65R310CFD	IPA65R310CFD			
340							IPL65R340CFD
420	IPP65R420CFD			IPA65R420CFD	IPW65R420CFD	IPD65R420CFD	
660				IPA65R660CFD		IPD65R660CFD	
950						IPD65R950CFD	
1400						IPD65R1K4CFD	


**650 V CoolMOST™ CE** ACTIVE

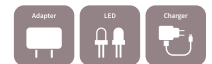
R <sub>DS(on)</sub> [mΩ]	TO-220	TO-220 FullPAK	TO-247	TO-252 (DPAK)	TO-251 (IPAK)	TO-251 (IPAK Short Lead)	SOT-223	TO-220 FullPAK Narrow Lead
400		IPA65R400CE		IPD65R400CE		IPS65R400CE		
650		IPA65R650CE		IPD65R650CE		IPS65R650CE		IPAN65R650CE
1000		IPA65R1K0CE		IPD65R1K0CE		IPS65R1K0CE		
1500		IPA65R1K5CE		IPD65R1K5CE			IPN65R1K5CE	

650 V CoolMOS™ C7 **ACTIVE & PREFERRED**

R <sub>DS(on)</sub> [mΩ]	TO-220	TO-263 (D <sup>2</sup> PAK)	TO-220 FullPAK	TO-247	TO-247 4-pin	TO-252 (DPAK)	ThinPAK 8x8
19				IPW65R019C7	IPZ65R019C7		
45	IPP65R045C7	IPB65R045C7	IPA65R045C7	IPW65R045C7	IPZ65R045C7		
65	IPP65R065C7	IPB65R065C7	IPA65R065C7	IPW65R065C7	IPZ65R065C7		
70							IPL65R070C7
95	IPP65R095C7	IPB65R095C7	IPA65R095C7	IPW65R095C7	IPZ65R095C7		
99							IPL65R099C7
125	IPP65R125C7	IPB65R125C7	IPA65R125C7	IPW65R125C7			
130							IPL65R130C7
190	IPP65R190C7	IPB65R190C7	IPA65R190C7	IPW65R190C7		IPD65R190C7	
195							IPL65R195C7
225	IPP65R225C7	IPB65R225C7	IPA65R225C7			IPD65R225C7	
230							IPL65R230C7

650 V CoolMOS™ C7 Gold (G-series) **ACTIVE & PREFERRED**

R <sub>DS(on)</sub> [mΩ]	TO -220	TO-Leadless (TOLL)	TO-263 (D2PAK)	TO-220 FullPAK	TO-247	TO -252 (DPAK)
33		IPT65R033G7				
105		IPT65R105G7				
195		IPT65R195G7				

700 V CoolMOS™ CE **ACTIVE**

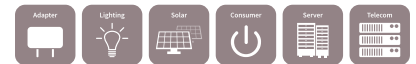
R <sub>DS(on)</sub> [mΩ]	TO-220	TO-220 FullPAK Wide creepage	TO-262 (I <sup>2</sup> PAK)	TO-251 (IPAK Short Lead with ISO Standoff)	TO-252 (DPAK)	TO-251 (IPAK)	TO-251 (IPAK Short Lead)	SOT-223
600		IPAW70R600CE		IPSA70R600CE	IPD70R600CE			
950		IPAW70R950CE	IP170R950CE	IPSA70R950CE	IPD70R950CE		IPS70R950CE	
1000								IPN70R1K0CE
1400				IPSA70R1K4CE	IPD70R1K4CE		IPS70R1K4CE	
1500								IPN70R1K5CE
2000				IPSA70R2K0CE	IPD70R2K0CE		IPS70R2K0CE	IPN70R2K1CE
2100								

700 V CoolMOS™ P7 **ACTIVE & PREFERRED**

R <sub>DS(on)</sub> [mΩ]	TO -220	TO - 262 (I <sup>2</sup> PAK)	TO-251 (IPAK Short Lead)	TO-220 FullPAK	ThinPAK 5x6	TO-252 (DPAK)	TO-220 FullPAK narrow lead	TO-251 (IPAK Short Lead w/ ISO Standoff)	SOT-223
360			IPS70R360P7S	IPA70R360P7S		IPD70R360P7S	IPAN70R360P7S	IPSA70R360P7S	IPN70R360P7S
450				IPA70R450P7S			IPAN70R450P7S	IPSA70R450P7S	IPN70R450P7S
600			IPS70R600P7S	IPA70R600P7S	IPLK70R600P7	IPD70R600P7S	IPAN70R600P7S	IPSA70R600P7S	IPN70R600P7S
750				IPA70R750P7S	IPLK70R750P7		IPAN70R750P7S	IPSA70R750P7S	IPN70R750P7S
900			IPS70R900P7S	IPA70R900P7S	IPLK70R900P7	IPD70R900P7S	IPAN70R900P7S	IPSA70R900P7S	IPN70R900P7S
1200					IPLK70R1K2P7			IPSA70R1K2P7S	IPN70R1K2P7S
1400			IPS70R1K4P7S		IPLK70R1K4P7	IPD70R1K4P7S		IPSA70R1K4P7S	IPN70R1K4P7S
2000					IPLK70R2K0P7			IPSA70R2K0P7S	IPN70R2K0P7S

[www.infineon.com/c7](http://www.infineon.com/c7)  
[www.infineon.com/c7-gold-toll](http://www.infineon.com/c7-gold-toll)  
[www.infineon.com/coolmos-700v](http://www.infineon.com/coolmos-700v)  
[www.infineon.com/ce](http://www.infineon.com/ce)  
[www.infineon.com/700v-p7](http://www.infineon.com/700v-p7)  
[www.infineon.com/c3](http://www.infineon.com/c3)

[www.infineon.com/ce](http://www.infineon.com/ce)  
[www.infineon.com/800v-p7](http://www.infineon.com/800v-p7)  
[www.infineon.com/coolmos-800v](http://www.infineon.com/coolmos-800v)  
[www.infineon.com/coolmos-900v](http://www.infineon.com/coolmos-900v)  
[www.infineon.com/950v-p7](http://www.infineon.com/950v-p7)

800 V CoolMOST™ C3 **ACTIVE**

R <sub>DS(on)</sub> [mΩ]	TO-220	TO-262 (I <sup>2</sup> PAK)	TO-263 (D <sup>2</sup> PAK)	TO-220 FullPAK	TO-247	TO-252 (DPAK)
85					SPW55N80C3	
290	SPP17N80C3		SPB17N80C3	SPA17N80C3	SPW17N80C3	
450	SPP11N80C3			SPA11N80C3	SPW11N80C3	
650	SPP08N80C3			SPA08N80C3		
900	SPP06N80C3			SPA06N80C3		SPD06N80C3
1300	SPP04N80C3			SPA04N80C3		SPD04N80C3
2700				SPA02N80C3		SPD02N80C3

800 V CoolMOST™ CE **ACTIVE**

R <sub>DS(on)</sub> [mΩ]	TO-220	TO-220 FullPAK	TO-247	TO-252 (DPAK)	TO-251 (IPAK)	TO-251 (IPAK Short Lead)
310		IPA80R310CE				
460		IPA80R460CE				
650		IPA80R650CE				
1000		IPA80R1K0CE		IPD80R1K0CE	IPU80R1K0CE	
1400		IPA80R1K4CE		IPD80R1K4CE		
2800				IPD80R2K8CE		

800 V CoolMOST™ P7 **ACTIVE & PREFERRED**

R <sub>DS(on)</sub> [mΩ]	TO-220	TO-220 FullPAK	TO-247	TO-252 (DPAK)	TO-251 (IPAK)	TO-251 (IPAK Short Lead)	SOT-223	TO-220 FullPAK narrow lead	ThinPAK 5x6
280	IPP80R280P7	IPA80R280P7	IPW80R280P7	IPD80R280P7				IPAN80R280P7	
360	IPP80R360P7	IPA80R360P7	IPW80R360P7	IPD80R360P7				IPAN80R360P7	
450	IPP80R450P7	IPA80R450P7		IPD80R450P7				IPAN80R450P7	
600	IPP80R600P7	IPA80R600P7		IPD80R600P7	IPU80R600P7	IPS80R600P7	IPN80R600P7		IPLK80R600P7
750	IPP80R750P7	IPA80R750P7		IPD80R750P7	IPU80R750P7	IPS80R750P7	IPN80R750P7		IPLK80R750P7
900	IPP80R900P7	IPA80R900P7		IPD80R900P7	IPU80R900P7	IPS80R900P7	IPN80R900P7		IPLK80R900P7
1200	IPP80R1K2P7	IPA80R1K2P7		IPD80R1K2P7	IPU80R1K2P7	IPS80R1K2P7	IPN80R1K2P7		IPLK80R1K2P7
1400	IPP80R1K4P7	IPA80R1K4P7		IPD80R1K4P7	IPU80R1K4P7	IPS80R1K4P7	IPN80R1K4P7		IPLK80R1K4P7
2000				IPD80R2K0P7	IPU80R2K0P7	IPS80R2K0P7	IPN80R2K0P7		IPLK80R2K0P7
2400				IPD80R2K4P7	IPU80R2K4P7	IPS80R2K4P7	IPN80R2K4P7		
3300				IPD80R3K3P7	IPU80R3K3P7		IPN80R3K3P7		
4500				IPD80R4K5P7	IPU80R4K5P7		IPN80R4K5P7		

900 V CoolMOST™ C3 **ACTIVE**

R <sub>DS(on)</sub> [mΩ]	TO-220	TO-262 (I <sup>2</sup> PAK)	TO-263 (D <sup>2</sup> PAK)	TO-220 FullPAK	TO-247	TO-252 (DPAK)
120					IPW90R120C3	
340	IPP90R340C3	IPI90R340C3	IPB90R340C3	IPA90R340C3	IPW90R340C3	
500		IPI90R500C3		IPA90R500C3	IPW90R500C3	
800	IPP90R800C3			IPA90R800C3		
1000	IPP90R1K0C3			IPA90R1K0C3		
1200	IPP90R1K2C3	IPI90R1K2C3		IPA90R1K2C3		IPD90R1K2C3

950 V CoolMOST™ P7 **ACTIVE & PREFERRED**

R <sub>DS(on)</sub> [mΩ]	TO-220	TO-220 FullPAK	SOT-223	TO-251 Long lead	TO-252 (DPAK)	TO-220 Wide creepage	ThinPAK 8x8	D <sup>2</sup> PAK
450		IPA95R450P7		IPU95R450P7	IPD95R450P7			
750		IPA95R750P7		IPU95R750P7	IPD95R750P7			
1200		IPA95R1K2P7	IPN95R1K2P7	IPU95R1K2P7	IPD95R1K2P7			
2000			IPN95R2K0P7	IPU95R2K0P7	IPD95R2K0P7			
3700			IPN95R3K7P7	IPU95R3K7P7				



## CoolMOS™ automotive

650 V CoolMOS™ CFDA **ACTIVE & PREFERRED**

Product type	$R_{DS(on)}$ @ $T_J = 25^\circ\text{C}$ $V_{GS} = 10\text{ V}$ [mΩ]	$I_{D,max.}$ @ $T_J = 25^\circ\text{C}$ [A]	$I_{D,puls,max.}$ [A]	$V_{GS(th),min.-max.}$ [V]	$Q_{G,typ.}$ [nC]	$R_{thJC,max.}$ [K/W]	Package
IPD65R420CFDA	420	8.7	27	3.5...4.5	32	1.5	TO-252
IPD65R660CFDA	660	6	17	3.5...4.5	20	2	TO-252
IPB65R110CFDA	110	31.2	99.6	3.5...4.5	11	0.45	TO-263
IPB65R150CFDA	150	22.4	72	3.5...4.5	86	0.64	TO-263
IPB65R190CFDA	190	17.5	57.2	3.5...4.5	68	0.83	TO-263
IPB65R310CFDA	310	11.4	34.4	3.5...4.5	41	1.2	TO-263
IPB65R660CFDA	660	6	17	3.5...4.5	20	2	TO-263
IPP65R110CFDA	110	31.2	99.6	3.5...4.5	11	0.45	TO-220
IPP65R150CFDA	150	22.4	72	3.5...4.5	86	0.64	TO-220
IPP65R190CFDA	190	17.5	57.2	3.5...4.5	68	0.83	TO-220
IPP65R310CFDA	310	11.4	34.4	3.5...4.5	41	1.2	TO-220
IPW65R048CFDA	48	63.3	228	3.5...4.5	27	0.25	TO-247
IPW65R080CFDA	80	43.3	127	3.5...4.5	16	0.32	TO-247
IPW65R110CFDA	110	31.2	99.6	3.5...4.5	11	0.45	TO-247
IPW65R150CFDA	150	22.4	72	3.5...4.5	86	0.64	TO-247
IPW65R190CFDA	190	17.5	57.2	3.5...4.5	68	0.83	TO-247

600 V CoolMOS™ CPA **ACTIVE & PREFERRED**

Product type	$R_{DS(on)}$ @ $T_J = 25^\circ\text{C}$ $V_{GS} = 10\text{ V}$ [mΩ]	$I_{D,max.}$ @ $T_J = 25^\circ\text{C}$ [A]	$I_{D,puls,max.}$ [A]	$V_{GS(th),min.-max.}$ [V]	$Q_{G,typ.}$ [nC]	$R_{thJC,max.}$ [K/W]	Package
IPB60R099CPA	99	31	93	2.5 ... 3.5	60	0.5	TO-263
IPB60R199CPA	199	16	51	2.5 ... 3.5	32	0.9	TO-263
IPB60R299CPA	299	11	34	2.5 ... 3.5	22	1.3	TO-263
IPP60R099CPA	99	31	93	2.5 ... 3.5	60	0.5	TO-220
IPW60R045CPA	45	60	230	2.5 ... 3.5	150	0.29	TO-247
IPW60R075CPA	75	39	130	2.5 ... 3.5	87	0.4	TO-247
IPW60R099CPA	99	31	93	2.5 ... 3.5	60	0.5	TO-247
IPW60R099CPA	99	31	93	2.5 ... 3.5	60	0.5	TO-262

800 V CoolMOS™ C3A **ACTIVE & PREFERRED**

Product type	$R_{DS(on)}$ @ $T_J = 25^\circ\text{C}$ $V_{GS} = 10\text{ V}$ [mΩ]	$I_{D,max.}$ @ $T_J = 25^\circ\text{C}$ [A]	$I_{D,puls,max.}$ [A]	$V_{GS(th),min.-max.}$ [V]	$Q_{G,typ.}$ [nC]	$R_{thJC,max.}$ [K/W]	Package
IPD80R2K7C3A	2700	2	6	2.1 ... 3.9	12	3	TO-252
IPB80R290C3A	290	17	51	2.1 ... 3.9	91	0.55	TO-263
IPW80R290C3A	290	17	51	2.1 ... 3.9	91	0.55	TO-247

[www.infineon.com/c3](http://www.infineon.com/c3)  
[www.infineon.com/ce](http://www.infineon.com/ce)  
[www.infineon.com/800v-p7](http://www.infineon.com/800v-p7)  
[www.infineon.com/coolmos-800v](http://www.infineon.com/coolmos-800v)  
[www.infineon.com/coolmos-900v](http://www.infineon.com/coolmos-900v)

[www.infineon.com/950v-p7](http://www.infineon.com/950v-p7)  
[www.infineon.com/coolmos-600v](http://www.infineon.com/coolmos-600v)  
[www.infineon.com/coolmos-650v](http://www.infineon.com/coolmos-650v)  
[www.infineon.com/coolmos-automotive](http://www.infineon.com/coolmos-automotive)  
[www.infineon.com/cfda](http://www.infineon.com/cfda)

# EiceDRIVER™ application guide

		Industrial, server and telecom SMPS and inverters							
		PFC			High voltage DC-DC				
Functionality		Primary side controlled			Primary side controlled	Secondary side controlled			400 V DC-link
Topology		Boost PFC ("classic": diode + FET)	Interleaved boost-PFC ("classic": diode + FET)	Bridgeless-PFC (Vienna)	LLC	LLC	ZVS	(i)TTF	Full-bridge
Switching device	High-side	SiC diode Gen5	SiC diode Gen5	CoolMOS™ C7/G7, P7	CoolMOS™ CFD7, P7	CoolMOS™ CFD7, P7	CoolMOS™ CFD7	CoolMOS™ C7/G7, P7	CoolMOS™ C7 <sup>2)/G7, P7<sup>3)</sup></sup>
	Low-side	CoolMOS™ C7/G7, P7	CoolMOS™ C7/G7, P7	CoolMOS™ C7/G7, P7	CoolMOS™ CFD7, P7	CoolMOS™ CFD7, P7	CoolMOS™ CFD7	CoolMOS™ C7/G7, P7	CoolMOS™ C7 <sup>2)/G7, P7<sup>3)</sup></sup>
Gate driver IC	High-side	n.a.		EiceDRIVER™ 2EDL	EiceDRIVER™ 1EDI	IR(S)21834 IR(S)2183 IR(S)2184	EiceDRIVER™ 2EDN <sup>1)</sup> EiceDRIVER™ 1EDN <sup>1)</sup>		
	Low-side	EiceDRIVER™ 2EDN EiceDRIVER™ 1EDN			EiceDRIVER™ 2EDN EiceDRIVER™ 1EDN				

<sup>1)</sup> Requires pulse-transformer<sup>2)</sup> 600 V for soft and hard switching high performance, 650 V for hard switching<sup>3)</sup> Rugged hard and soft switching

EV charging stations						
		PFC			High voltage DC-DC	
Functionality						
Topology		Interleaved boost PFC	Vienna PFC		Phase-shift ZVS full-bridge	
Switching device	High-side	CoolSiC™ Schottky diode G6"	CoolMOS™ C7/G7, P7		CoolMOS™ CFD7	
	Low-side	CoolMOS™ C7/G7	CoolMOS™ C7/G7, P7		CoolMOS™ CFD7	
Gate driver IC	High-side	n.a.	EiceDRIVER™ 2EDL	1EDICompact	EiceDRIVER™ 2EDN <sup>1)</sup> EiceDRIVER™ 1EDN <sup>1)</sup>	
	Low-side	EiceDRIVER™ 2EDN EiceDRIVER™ 1EDN		EiceDRIVER™ 2EDN EiceDRIVER™ 1EDN	EiceDRIVER™ 2EDN <sup>1)</sup> EiceDRIVER™ 1EDN <sup>1)</sup>	

<sup>1)</sup> Requires pulse-transformer

# EiceDRIVER™ 1EDN family

Rugged, cool and fast, single-channel low-side 4/8 A gate driver ICs

## EiceDRIVER™ 1EDN family overview

Single-channel MOSFET gate driver ICs are the crucial link between control ICs and powerful MOSFET and GaN switching devices. Gate driver ICs enable high system level efficiencies, excellent power density and consistent system robustness.

## EiceDRIVER™ 1EDN family: fast, precise, strong and compatible

- › Highly efficient SMPS enabled by 5 ns short slew rates and  $\pm 5$  ns propagation delay precision for fast MOSFET and GaN switching
- › Separate source and sink outputs simplify the application design
- › Industry standard packages and pinout ease system design upgrades

## EiceDRIVER™ 1EDN family: the new reference in ruggedness and low power dissipation

- › -10 V robustness of control and enable inputs provides crucial safety margin when driving pulse transformers
- › 5 A reverse output current robustness eliminates the need for Schottky switching diodes when driving MOSFETs in TO-220 and TO-247 packages
- › Cool driver ICs thanks to true rail-to-rail low impedance output stages
- › 4 V and 8 V UVLO (under voltage lock out) options for instant MOSFET protection during start-up and under abnormal conditions

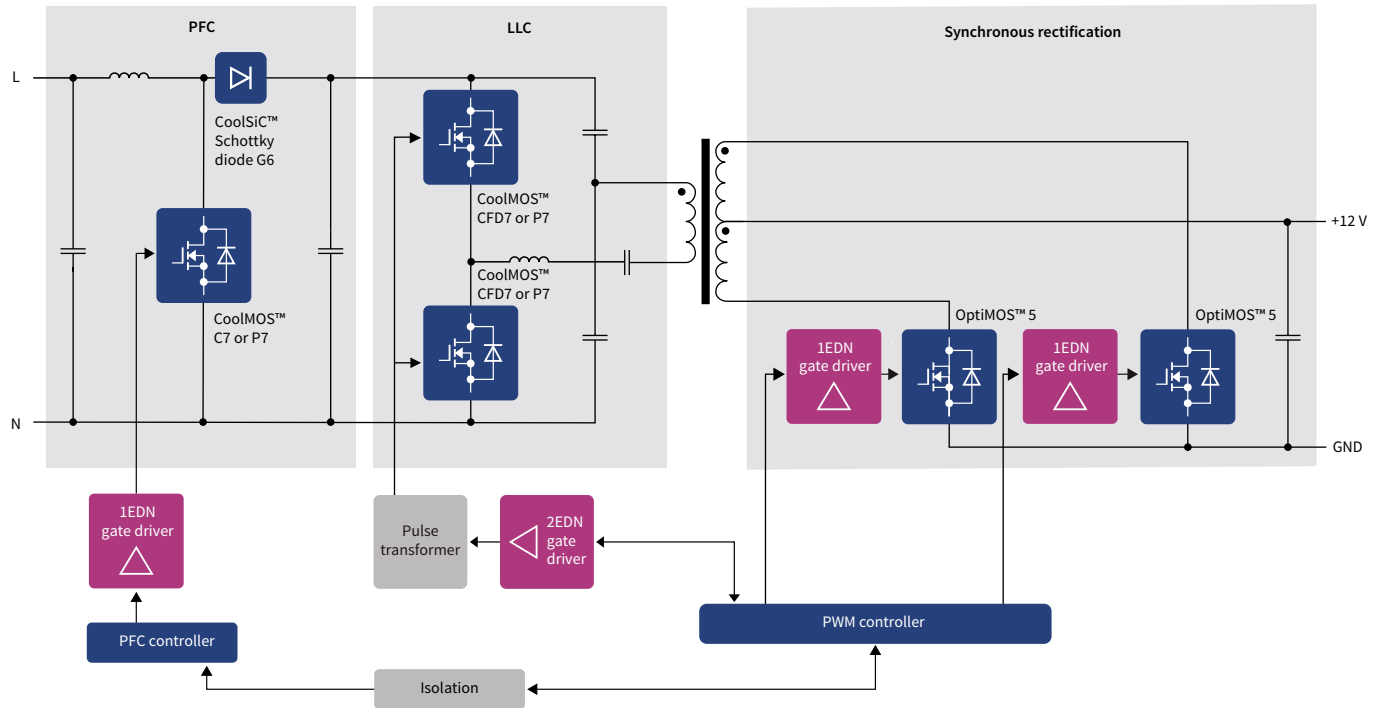
## Applications

- › PFC
- › Synchronous rectification
- › DC-DC converters
- › Telecom bricks
- › Power tools
- › Industrial SMPS
- › Motor control
- › Wireless charging



Product features	Product benefits	System benefits
<ul style="list-style-type: none"> <li>› 4 A source/8 A sink current</li> <li>› 6 ns rise/5 ns fall times</li> <li>› <math>\pm 5</math> ns propagation delay precision</li> </ul>	<ul style="list-style-type: none"> <li>› Fast Miller plateau transition</li> <li>› Precise timing</li> </ul>	<ul style="list-style-type: none"> <li>› High power efficiency               <ul style="list-style-type: none"> <li>– in hard switching PFC with SiC diode</li> <li>– in half-bridges and synchronous rectifications</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>› True rail-to-rail low impedance output stages</li> </ul>	<ul style="list-style-type: none"> <li>› Low power dissipation in driver IC</li> </ul>	<ul style="list-style-type: none"> <li>› Cooler driver IC operation</li> <li>› Higher MOSFET drive capability</li> </ul>
<ul style="list-style-type: none"> <li>› 4 V and 8 V UVLO options</li> <li>› 19 ns propagation delay</li> </ul>	<ul style="list-style-type: none"> <li>› Fast and reliable MOSFET turn-off, independent of control IC</li> </ul>	<ul style="list-style-type: none"> <li>› Instant MOSFET protection during start-up and under abnormal operation</li> </ul>
<ul style="list-style-type: none"> <li>› -10 V robustness of inputs</li> </ul>	<ul style="list-style-type: none"> <li>› Increased GND-bounce robustness</li> </ul>	<ul style="list-style-type: none"> <li>› Crucial safety margin to drive pulse transformer</li> </ul>
<ul style="list-style-type: none"> <li>› 5 A reverse output current robustness</li> </ul>	<ul style="list-style-type: none"> <li>› Saves switching diodes</li> </ul>	<ul style="list-style-type: none"> <li>› Increases power density</li> <li>› BOM savings</li> </ul>
<ul style="list-style-type: none"> <li>› Industry standard pinout and packages</li> </ul>	<ul style="list-style-type: none"> <li>› Straight forward design upgrades</li> </ul>	<ul style="list-style-type: none"> <li>› Short time-to-market</li> </ul>

## Application overview 800 W switched mode power supply



# EiceDRIVER™ 1EDN7550 and 1EDN8550

Single-channel low-side gate driver family with truly differential inputs prevents false triggering of power MOSFETs

## Overview

The input signal levels of conventional low-side gate driver ICs are referenced to the ground potential of the gate driver IC. If in the application, the ground potential of the gate driver IC shifts excessively false triggering of the gate driver IC can occur.

The 1EDN7550/1EDN8550 gate driver ICs have truly differential inputs. Their control signal inputs are largely independent from the ground potential. Only the voltage difference between its input contacts is relevant. This prevents false triggering of power MOSFETs.

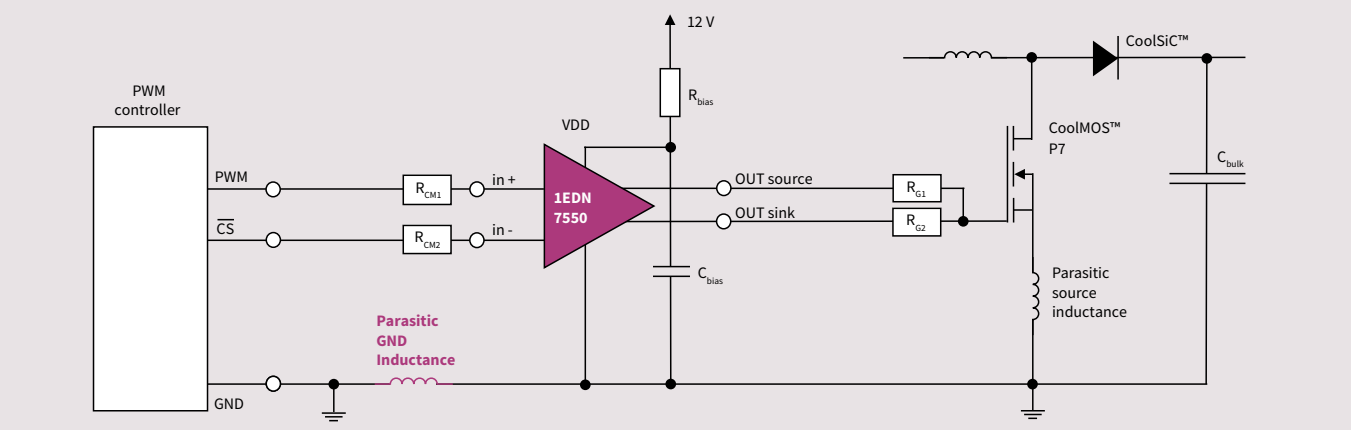
## Applications

- › Server
- › Telecom
- › DC-DC converters
- › Telecom bricks
- › Power tools
- › Industrial SMPS
- › Wireless charging
- › Solar micro inverter

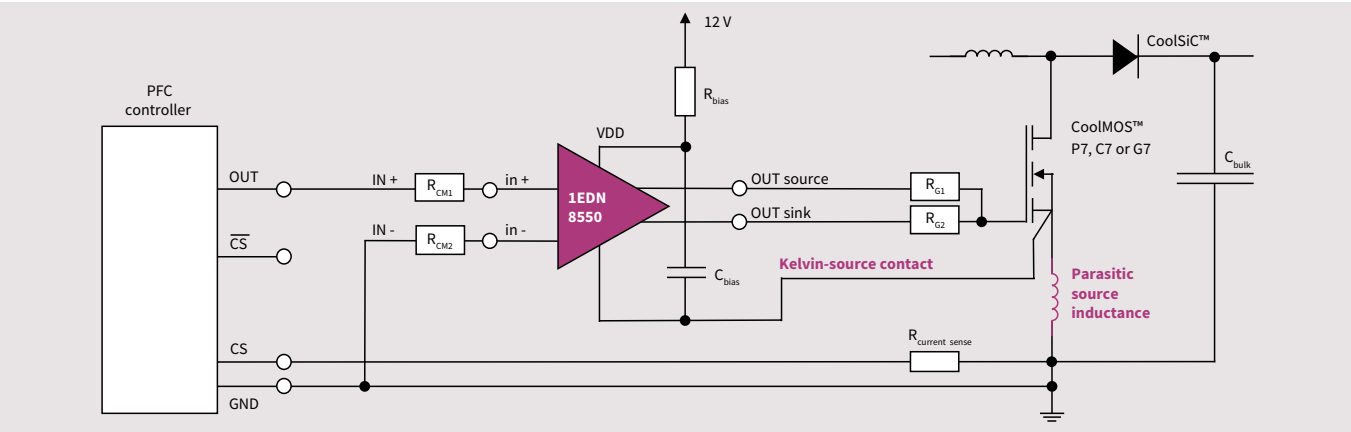


Product features	Product benefits	Application benefits
<ul style="list-style-type: none"> <li>› Truly differential inputs</li> </ul>	<ul style="list-style-type: none"> <li>› Control inputs independent from gate driver GND</li> </ul>	<ul style="list-style-type: none"> <li>› Robust against ground shifts from power MOSFET switching</li> </ul>
<ul style="list-style-type: none"> <li>› 4 A source current</li> <li>› 8 A sink current</li> <li>› Separate source/sink outputs</li> <li>› Low-ohmic output stage</li> </ul>	<ul style="list-style-type: none"> <li>› Fast Miller plateau transition</li> <li>› Fast shut-off</li> <li>› No diode voltage drop → Near zero gate voltage at turn-off</li> <li>› Low power dissipation within gate driver IC</li> </ul>	<ul style="list-style-type: none"> <li>› Low MOSFET switching losses</li> <li>› Robust against false MOSFET triggering</li> <li>› Highest effective MOSFET driving power</li> </ul>
<ul style="list-style-type: none"> <li>› 29 ns input minimum pulse width</li> <li>› 7 ns propagation delay accuracy</li> </ul>	<ul style="list-style-type: none"> <li>› Up to 15 MHz switching speed</li> <li>› Precise</li> </ul>	<ul style="list-style-type: none"> <li>› Efficiency gains</li> </ul>
<ul style="list-style-type: none"> <li>› 5 A reverse current robustness of the outputs</li> <li>› 4 V and 8 V UVLO versions</li> </ul>	<ul style="list-style-type: none"> <li>› No schottky clamping diodes required</li> <li>› Fast and reliable MOSFET turn-off</li> </ul>	<ul style="list-style-type: none"> <li>› Increased power density and BOM savings</li> <li>› Instant MOSFET protection under abnormal operation</li> </ul>
<ul style="list-style-type: none"> <li>› SOT-23 package, 6 pins</li> </ul>	<ul style="list-style-type: none"> <li>› Small</li> </ul>	<ul style="list-style-type: none"> <li>› High power density</li> </ul>

1EDN7550 driving CoolMOS™ SJ MOSFET on 1-layer PCB



1EDN8550 driving Kelvin source CoolMOS™ SJ MOSFET in boost PFC





# EiceDRIVER™ 2EDN family

## Rugged, cool and fast, dual-channel low-side 5 A driver ICs

### EiceDRIVER™ 2EDN family overview

Dual-channel driver ICs are the crucial link between control ICs and powerful MOSFET and GaN switching devices. Driver ICs enable high system level efficiencies, excellent power density and consistent system robustness.

### EiceDRIVER™ 2EDN family: fast, precise, strong and compatible

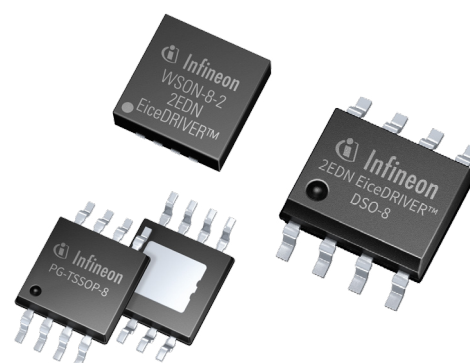
- › Highly efficient SMPS enabled by 5 ns short slew rates and 10 ns propagation delay precision for fast MOSFET and GaN switching
- › Numerous deployment options due to two 4 A/5 A channels. 1 ns channel-to-channel accuracy to use two channels in parallel
- › Industry standard packages and pinout ease system design upgrades

### EiceDRIVER™ 2EDN family: the new reference in ruggedness and low power dissipation

- › 4 V and 8 V UVLO (under voltage lock out) options for instant MOSFET protection under abnormal conditions
- › -10 V robustness of control and enable inputs provides crucial safety margin when driving pulse transformers or driving MOSFETs in TO-220 and TO-247 packages
- › 5 A reverse output current robustness eliminates the need for Schottky switching diodes and reduces bill-of-material
- › Cool driver ICs from true rail-to-rail low impedance output stages

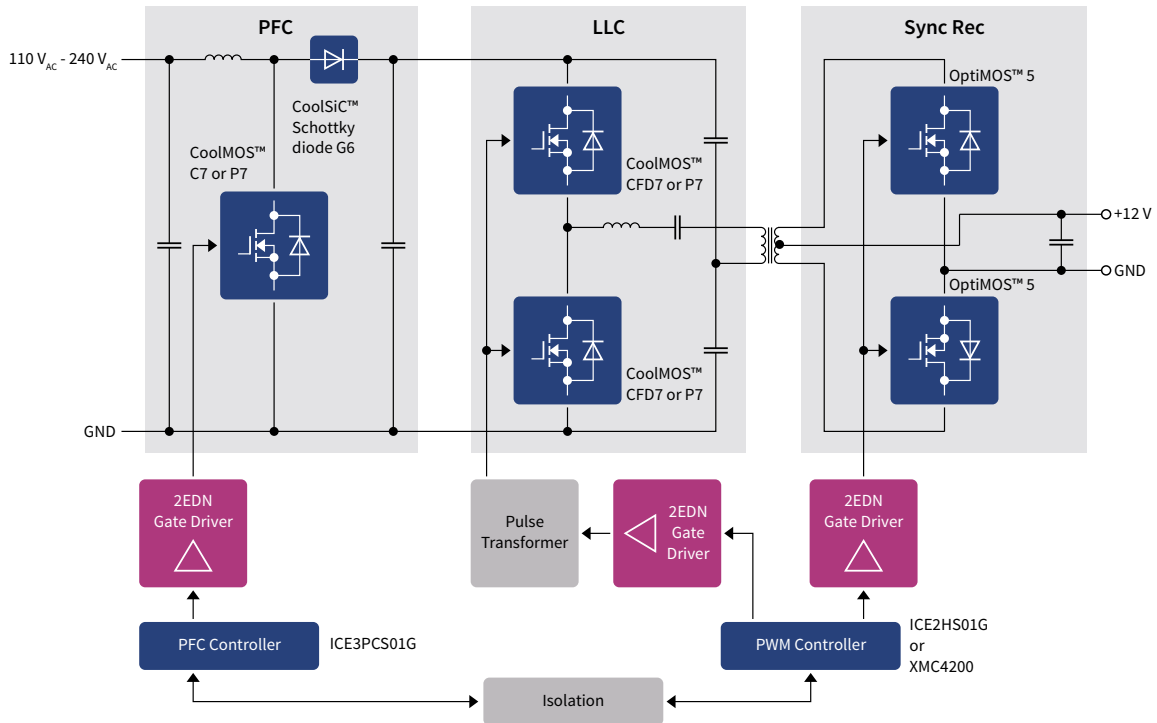
### Applications

- › Server
- › Telecom
- › DC-DC converters
- › Bricks
- › Power tools
- › Industrial SMPS
- › Motor control
- › Solar



Product features	Product benefits	System benefits
<ul style="list-style-type: none"> <li>› 5 A source/sink current</li> <li>› 5 ns rise/fall times</li> <li>› &lt;10 ns propagation delay precision</li> </ul>	<ul style="list-style-type: none"> <li>› Fast Miller plateau transition</li> <li>› Precise timing</li> </ul>	<ul style="list-style-type: none"> <li>› High power efficiency               <ul style="list-style-type: none"> <li>– in hard switching PFC with SiC diode</li> <li>– in half-bridges and synchronous rectifications</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>› True rail-to-rail low impedance output stages</li> </ul>	<ul style="list-style-type: none"> <li>› Low power dissipation in Driver IC</li> </ul>	<ul style="list-style-type: none"> <li>› Cooler driver IC operation</li> <li>› Higher MOSFET drive capability</li> </ul>
<ul style="list-style-type: none"> <li>› 4 V and 8 V UVLO options</li> <li>› 19 ns propagation delay for both control and enable inputs</li> </ul>	<ul style="list-style-type: none"> <li>› Fast and reliable MOSFET turn-off, independent of control IC</li> </ul>	<ul style="list-style-type: none"> <li>› Instant MOSFET protection under abnormal operation</li> </ul>
<ul style="list-style-type: none"> <li>› -10 V robustness of control and enable inputs</li> </ul>	<ul style="list-style-type: none"> <li>› Increased GND-bounce robustness</li> </ul>	<ul style="list-style-type: none"> <li>› Crucial safety margin to drive pulse transformer</li> </ul>
<ul style="list-style-type: none"> <li>› 5 A reverse output current robustness</li> </ul>	<ul style="list-style-type: none"> <li>› Saves switching diodes</li> </ul>	<ul style="list-style-type: none"> <li>› Increases power density</li> <li>› BOM savings</li> </ul>
<ul style="list-style-type: none"> <li>› 2 independent channels</li> <li>› Excellent 1 ns channel-to-channel accuracy</li> </ul>	<ul style="list-style-type: none"> <li>› Option to increase drive current by truly ncurrent switching of 2 channels</li> </ul>	<ul style="list-style-type: none"> <li>› One IC covering many applications</li> </ul>
<ul style="list-style-type: none"> <li>› Industry standard pinout and packages</li> </ul>	<ul style="list-style-type: none"> <li>› Straight forward design upgrades</li> </ul>	<ul style="list-style-type: none"> <li>› Short time-to-market</li> </ul>

## Application overview 800 W 130 kHz switched mode power supply



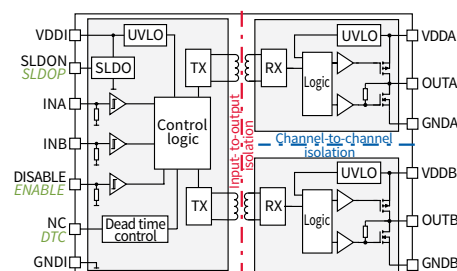
# EiceDRIVER™ 2EDi product family

Fast, robust, dual-channel, functional and reinforced isolated MOSFET gate drivers with accurate and stable timing

## 2EDi family Overview

The EiceDRIVER™ 2EDi product family is designed for use in high-performance power conversion applications. Very strong 4 A/8 A source/sink dual-channel gate drivers increase efficiency in CoolMOS™ and OptiMOS™ MOSFET half-bridges. The low propagation delay of 37 ns, combined with highly accurate and stable timing over temperature and production, enables further efficiency gains within and across galvanically isolated power stages or in multi-phase/multi-level topologies. The availability of functional and reinforced isolated drivers in different packages makes these a perfect fit for both primary side and (safe) secondary side control. Gate driver outputs come with a high 5 A reverse current capability and 150 V/ns CMTI robustness for high dv/dt power loops. For slower switching or driving smaller MOSFETs, 1 A/2 A peak current product variants are available as well.

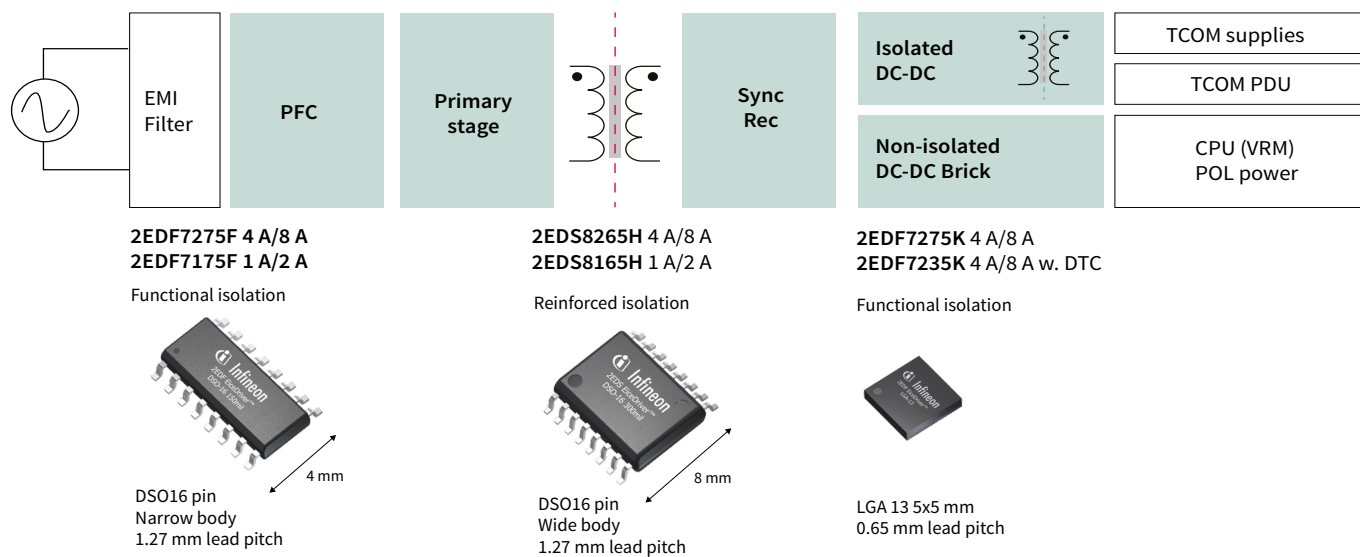
## Device overview






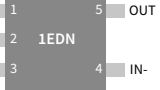

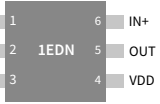
EiceDRIVER™ 2EDi product family device diagram

Product key features	Product benefits	System benefits
<b>Fast power switching with accurate timing</b> <ul style="list-style-type: none"> <li>Available with 4 A/8 A and 1 A/2 A source/sink currents</li> <li>Propagation delay typ. 37 ns with 3 ns channel-to-channel mismatch</li> <li>Max. delay variation ~14 ns</li> </ul>	<b>Efficiency gain and lower losses</b> <ul style="list-style-type: none"> <li>Lower switching losses in half-bridges due to fast and accurate turn on/off</li> <li>Perfect for new digital, fast high resolution PWM control including light load optimization</li> </ul>	<b>Enabling higher system efficiency and higher power density designs</b>
<b>Optimized for area and system BOM</b> <ul style="list-style-type: none"> <li>Isolation and driver in one package</li> <li>Low power dissipation due to low on-resistance</li> <li>Output stages with 5 A reverse current capability</li> </ul>	<b>Improved thermal behavior at smaller form factor</b> <ul style="list-style-type: none"> <li>LGA with 1 mm, DSO with 2.3 mm package height versus volume &gt; 1 cm³ for pulse transformers</li> <li>Eliminates two costly protection diodes on the gate driver outputs</li> </ul>	<b>Improving long term competitive cost position, integration and mass manufacturability</b>
<b>Robust design against switching noise</b> <ul style="list-style-type: none"> <li>Floating drivers are able to handle large inductive voltage over- and undershoots</li> <li>Very good common mode transient immunity CMTI &gt;150 V/ns</li> <li>Undervoltage lockout function for switch protection</li> </ul>	<b>Protection and safe operation</b> <ul style="list-style-type: none"> <li>Ideal for use in high power designs with fast switching transients</li> <li>Reliable CT coreless transformer PWM signal chain to turn on high side MOSFETs</li> </ul>	<b>Extending end-product lifetime</b> by improving safe operation of power switches in normal and abnormal field (grid) conditions
<b>Output- to -output channel isolation</b> <ul style="list-style-type: none"> <li>Functional level galvanic isolation</li> </ul>	<b>Flexible configurations</b> <ul style="list-style-type: none"> <li>HS+LS, HS+HS, LS+LS or 2x I<sub>max</sub> on 1xHS</li> </ul>	<b>Lower EMI</b> by ground isolation, driver proximity to MOSFETs or the use of 4-pin Kelvin source MOSFETs
<b>Input- to output channel isolation</b> <ul style="list-style-type: none"> <li>Functional and reinforced galvanic isolation</li> </ul>	<b>Regulatory safety</b> <ul style="list-style-type: none"> <li>Functional for primary-side control</li> <li>Reinforced for secondary-side control</li> </ul>	<b>Simplified safety approval</b> through component (VDE884-x, UL1577) and system (IEC60950, IEC62386) certificates

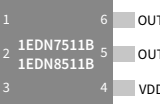
## System application diagram




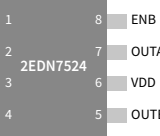


## EiceDRIVER™ 1EDN product portfolio

Package		UVLO	Product name	Orderable part number	Pinout
	SOT-23 6-pin	4 V	1EDN7511B	1EDN7511BXUSA1	
		8 V	1EDN8511B	1EDN8511BXUSA1	
	SOT-23 5-pin	4 V	1EDN7512B	1EDN7512BXTSA1	
	WSON 6-pin	4 V	1EDN7512G	1EDN7512GXTMA1	

## EiceDRIVER™ 1EDN7550 and 1EDN8550 product portfolio

Type	Ground shift robustness		UVLO	Package	Pinout
	dynamic	static			
1EDN7550B	+/- 150 V	+/- 70 V	4 V	SOT-23 6-pin	
1EDN8550B	+/- 150 V	+/- 70 V	8 V	SOT-23 6-pin	

## EiceDRIVER™ 2EDN product portfolio

Package	Current	UVLO	Inputs	Product name	Orderable part number	Pinout
	5 A	4 V	Direct	2EDN7524F	2EDN7524FXTMA1	
			Inverted	2EDN7523F	2EDN7523FXTMA1	
	4 A	4 V	Direct	2EDN7424F	2EDN7424FXTMA1	
			Inverted	2EDN7423F	2EDN7423FXTMA1	
	5 A	8 V	Direct	2EDN8524F	2EDN8524FXTMA1	
			Inverted	2EDN8523F	2EDN8523FXTMA1	
	4 A	4 V	Direct	2EDN7524R	2EDN7524RXUMA1	
			Inverted	2EDN7523R	2EDN7523RXUMA1	
	5 A	8 V	Direct	2EDN8524R	2EDN8524RXUMA1	
			Inverted	2EDN8523R	2EDN8523RXUMA1	
	4 A	4 V	Direct	2EDN7524G	2EDN7524GXTMA1	
			Inverted	2EDN7523G	2EDN7523GXTMA1	

[www.infineon.com/1edn](http://www.infineon.com/1edn)
[www.infineon.com/1EDN-TDI](http://www.infineon.com/1EDN-TDI)
[www.infineon.com/2edn](http://www.infineon.com/2edn)

## EiceDRIVER™ 2EDi product portfolio

Part number	Orderable part number (OPN)	Package	PWM Input type	Driver source/ Sink current	Gate driver UVLO	Input to output isolation				Dead-time control
						Isolation class	Rating	Surge testing	Safety certification*	
2EDF7275F	2EDF7275FXUMA1	NB-DSO16 10 x 6 mm	Dual Mode (IN_A, IN_B)	4 A/8 A	4 V	Functional	VIO =1.5 kVDC	n.a.	n.a.	no
2EDF7175F	2EDF7175FXUMA1			1 A/2 A						
2EDF7275K	2EDF7275KXU-MA1	LGA13 5.0 x 5.0 mm		4 A/8 A						yes
2EDF7235K	2EDF7235KXU-MA1									
2EDS8265H	2EDS8265HX-UMA1	WB-DSO16 10.3 x 10.3 mm		1 A/2 A	8 V	Reinforced	VIOTM = 8 kVpeak (VDE0884-1x)  VISO = 5.7 kVrms (UL1577)	VIOSM = 10 kVpeak (IEC60065)	VDE0884-10 UL1577 IEC60950 IEC62368 CQC	no
2EDS8165H	2EDS8165HX-UMA1									





# Infineon support for high voltage MOSFETs and industrial gate driver ICs

Useful links and helpful information

## **Further information, datasheets and documents**

[www.infineon.com/coolmos](http://www.infineon.com/coolmos)

[www.infineon.com/coolmos-latest-packages](http://www.infineon.com/coolmos-latest-packages)

[www.infineon.com/coolmos-automotive](http://www.infineon.com/coolmos-automotive)

## **Evaluationboards and simulation models**

[www.infineon.com/coolmos-boards](http://www.infineon.com/coolmos-boards)

[www.infineon.com/powermosfet-simulationmodels](http://www.infineon.com/powermosfet-simulationmodels)

## **Videos**

[www.infineon.com/mediacenter](http://www.infineon.com/mediacenter)



## Notes



## Notes



A world leader  
in semiconductor solutions



## Our vision

We are the link between the  
real and the digital world.

## Our values

We commit  
We partner  
We innovate  
We perform

## Our mission

We make life  
easier, safer  
and greener.

Part of your life. Part of tomorrow.

# Where to buy

Infineon distribution partners and sales offices:

[www.infineon.com/WhereToBuy](http://www.infineon.com/WhereToBuy)

## Service hotline

Infineon offers its toll-free 0800/4001 service hotline as one central number, available 24/7 in English, Mandarin and German.

- › Germany ..... 0800 951 951 951 (German/English)
- › China, mainland ..... 4001 200 951 (Mandarin/English)
- › India ..... 000 800 4402 951 (English)
- › USA ..... 1-866 951 9519 (English/German)
- › Other countries ..... 00\* 800 951 951 951 (English/German)
- › Direct access ..... +49 89 234-0 (interconnection fee, German/English)

\* Please note: Some countries may require you to dial a code other than "00" to access this international number.  
Please visit [www.infineon.com/service](http://www.infineon.com/service) for your country!



Mobile product catalog

Mobile app for iOS and Android.

[www.infineon.com](http://www.infineon.com)

Published by  
Infineon Technologies Austria AG  
9500 Villach, Austria

© 2019 Infineon Technologies AG.  
All rights reserved.

### Please note!

THIS DOCUMENT IS FOR INFORMATION PURPOSES ONLY AND ANY INFORMATION GIVEN HEREIN SHALL IN NO EVENT BE REGARDED AS A WARRANTY, GUARANTEE OR DESCRIPTION OF ANY FUNCTIONALITY, CONDITIONS AND/OR QUALITY OF OUR PRODUCTS OR ANY SUITABILITY FOR A PARTICULAR PURPOSE. WITH REGARD TO THE TECHNICAL SPECIFICATIONS OF OUR PRODUCTS, WE KINDLY ASK YOU TO REFER TO THE RELEVANT PRODUCT DATA SHEETS PROVIDED BY US. OUR CUSTOMERS AND THEIR TECHNICAL DEPARTMENTS ARE REQUIRED TO EVALUATE THE SUITABILITY OF OUR PRODUCTS FOR THE INTENDED APPLICATION.

WE RESERVE THE RIGHT TO CHANGE THIS DOCUMENT AND/OR THE INFORMATION GIVEN HEREIN AT ANY TIME.

### Additional information

For further information on technologies, our products, the application of our products, delivery terms and conditions and/or prices, please contact your nearest Infineon Technologies office ([www.infineon.com](http://www.infineon.com)).

### Warnings

Due to technical requirements, our products may contain dangerous substances. For information on the types in question, please contact your nearest Infineon Technologies office.

Except as otherwise explicitly approved by us in a written document signed by authorized representatives of Infineon Technologies, our products may not be used in any life-endangering applications, including but not limited to medical, nuclear, military, life-critical or any other applications where a failure of the product or any consequences of the use thereof can result in personal injury.