

# CoolMOS™ Selection Guide

Common CoolMOS™ applications and topologies



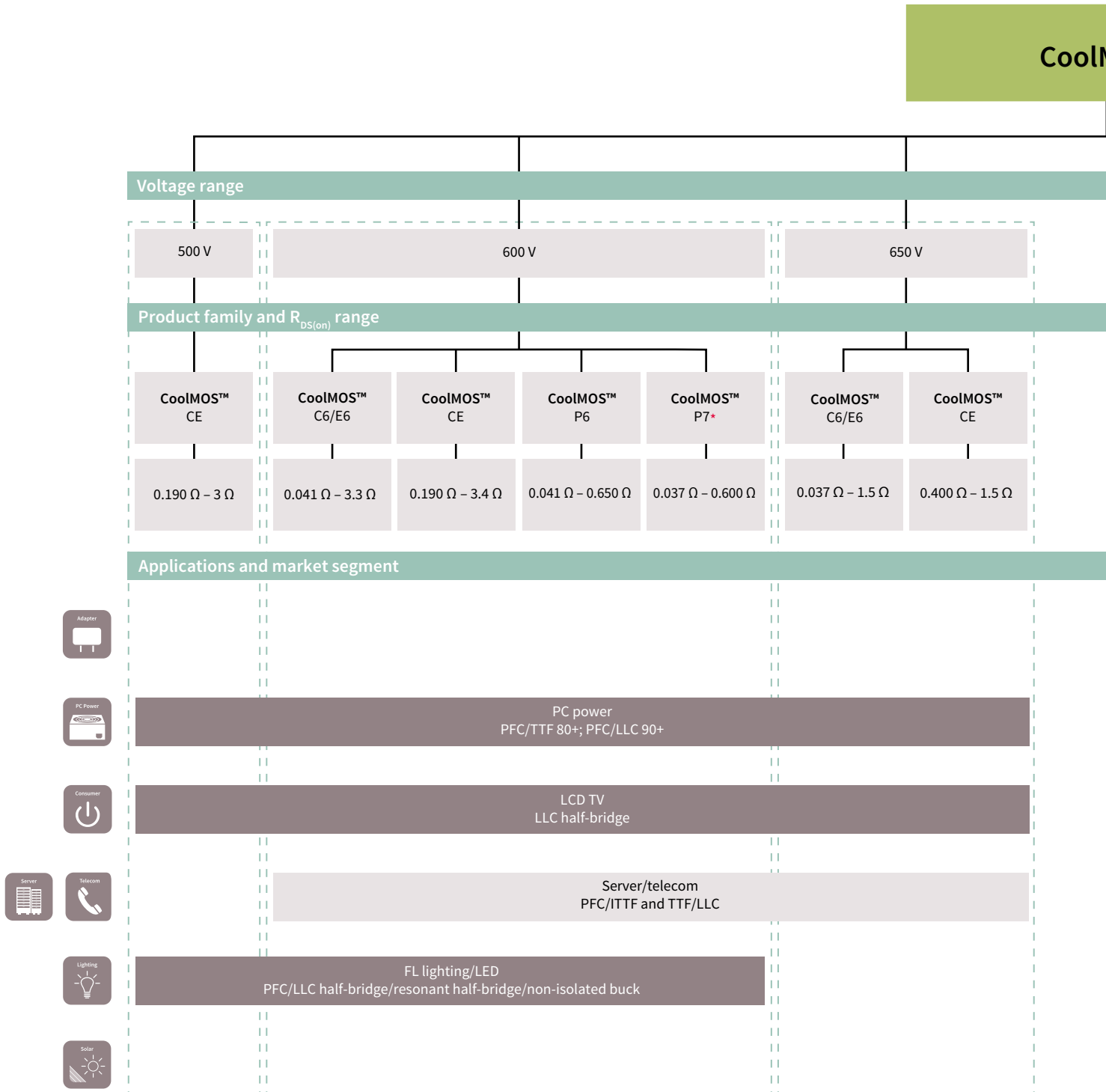
The revolutionary CoolMOS™ power MOSFET family sets new standards in the field of energy efficiency.

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# Price/performance

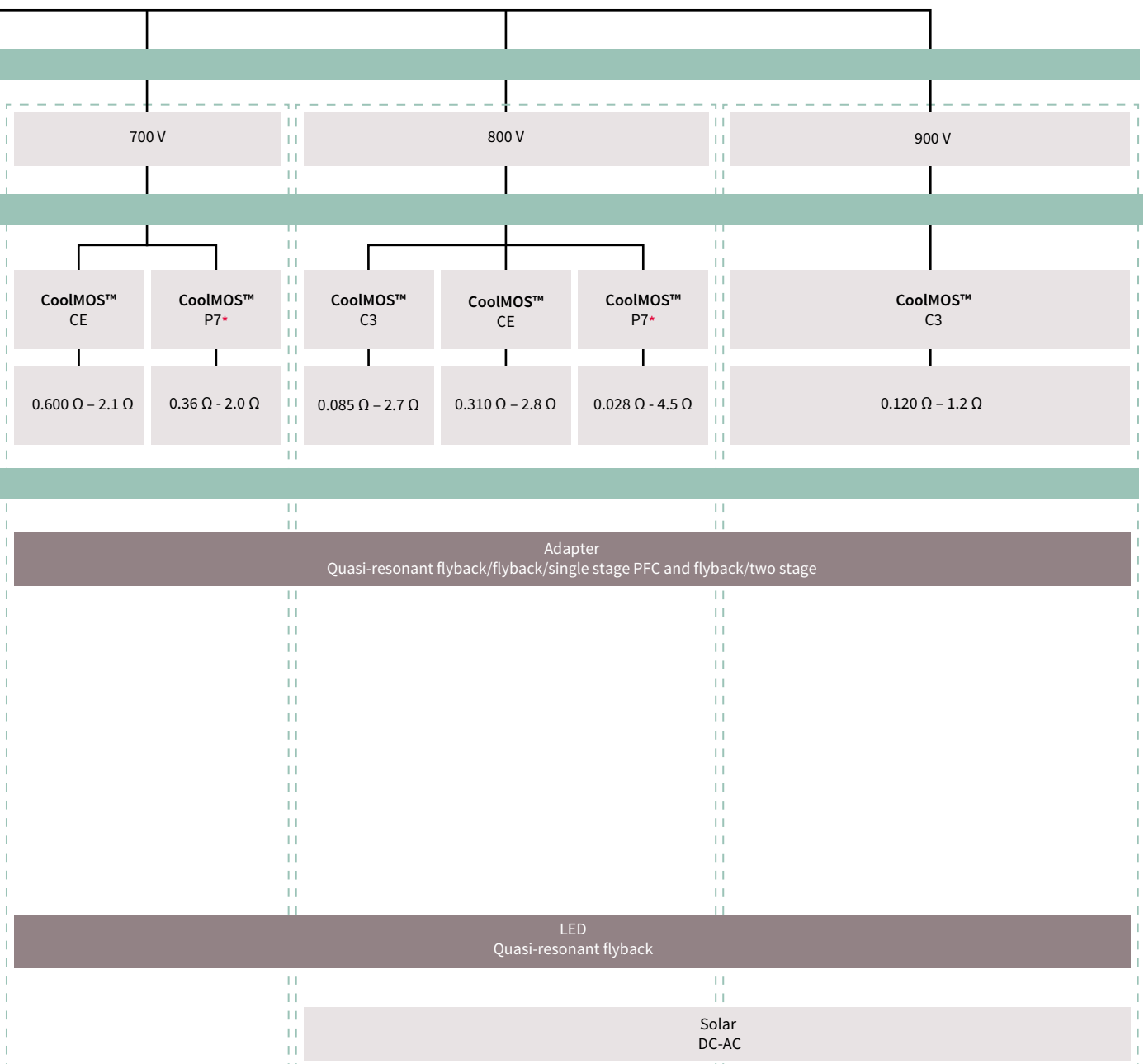
Optimum performance in the following more cost sensitive applications and topologies



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

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

MOS™



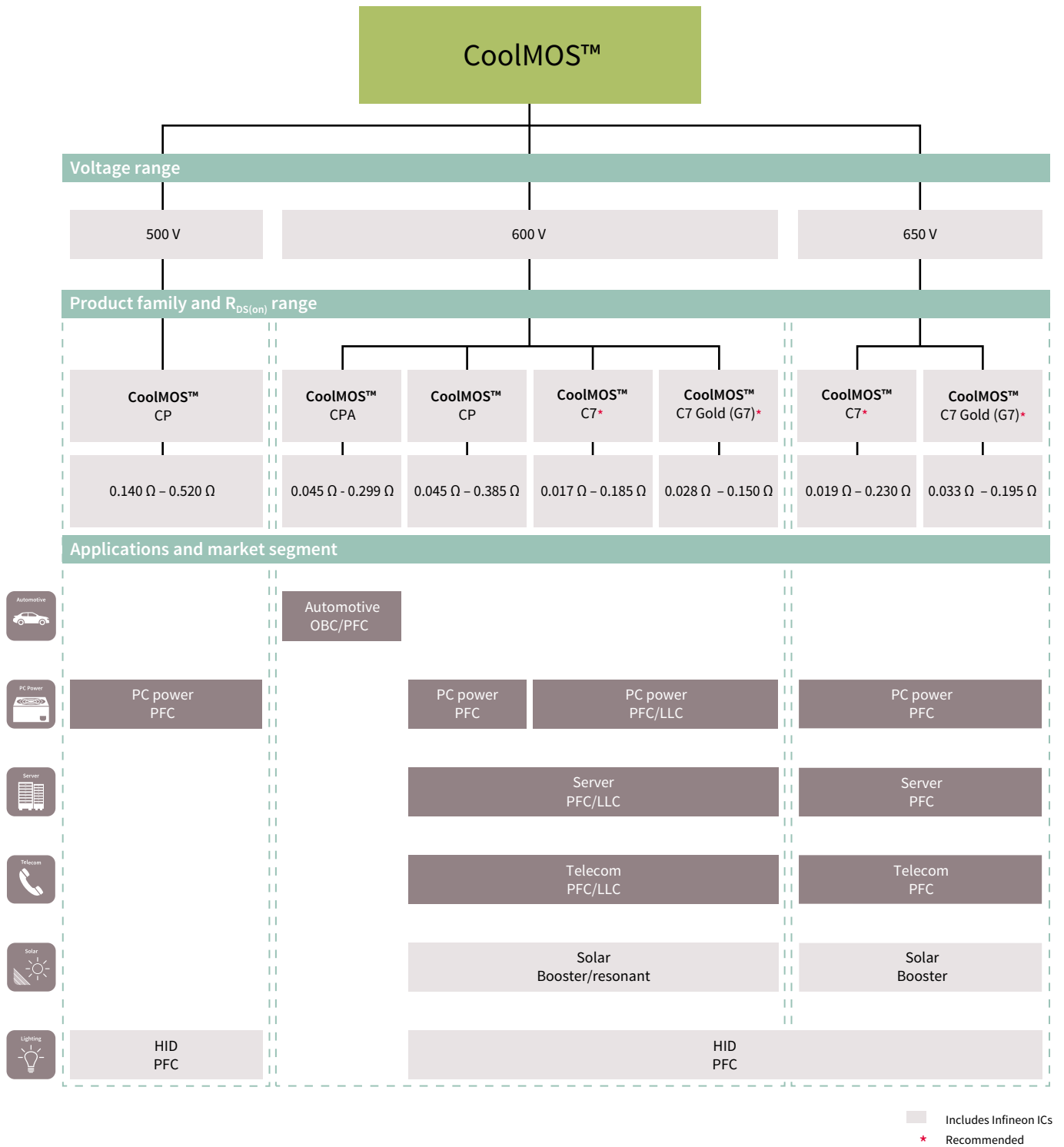
■ Includes Infineon ICs

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

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

Best-in-class efficiency

Highest performance CoolMOST™ recommended for the following applications and topologies

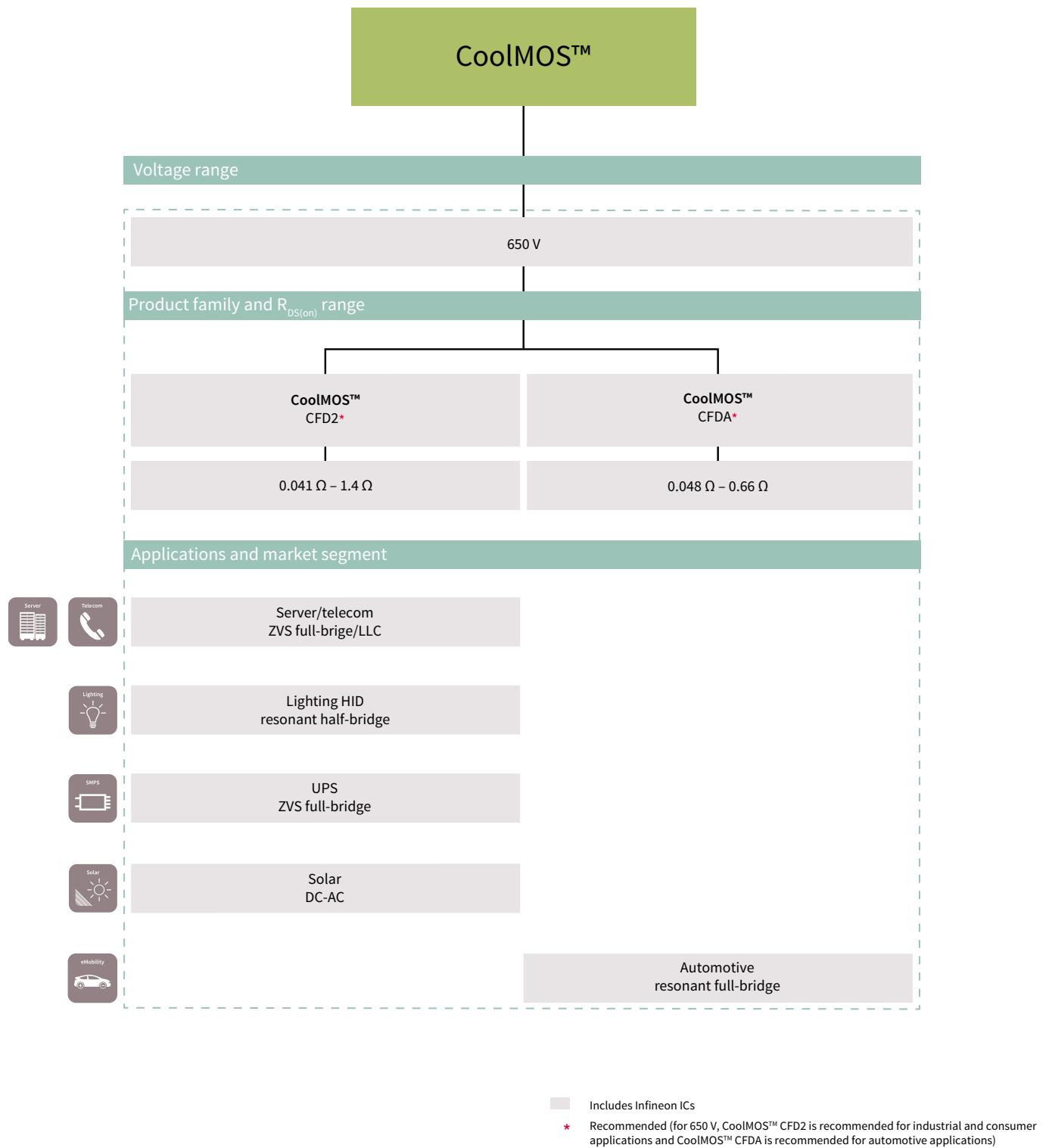


Drive your CoolMOST™ to best performance with a cool EiceDRIVER™



## Fast body diode series

Optimum CoolMOS™ for resonant switching topologies in the following applications



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

## EiceDRIVER™ application guide

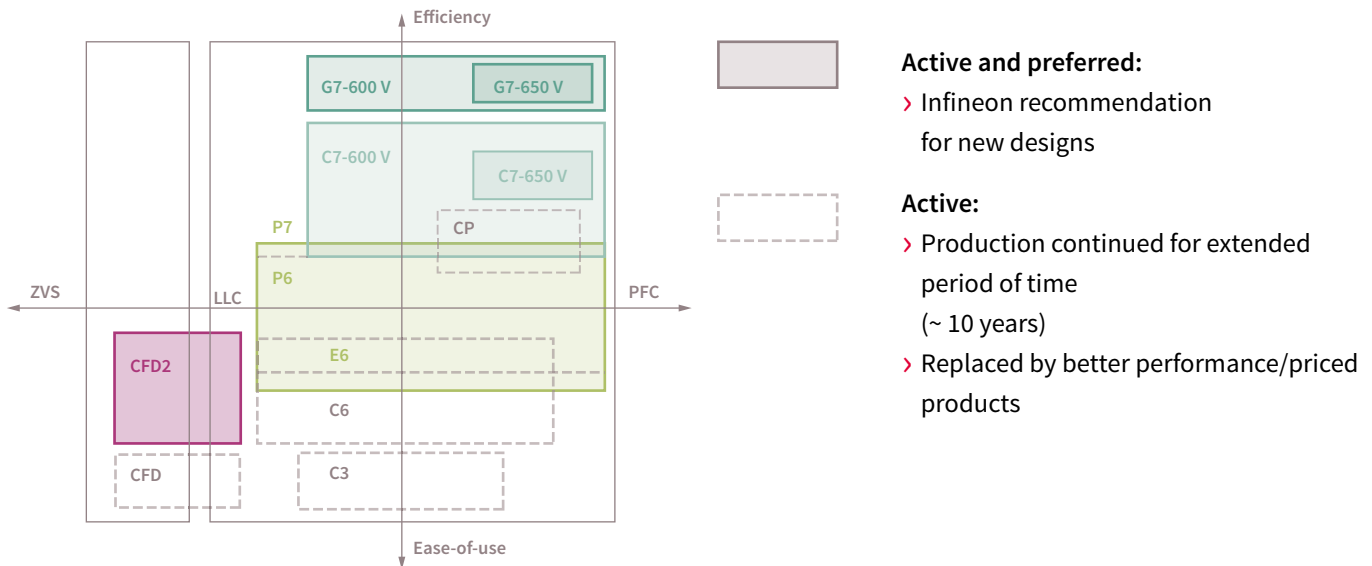
		Industrial, server and telecom SMPS and inverters								
		PFC			High voltage DC-DC					
Functionality		Primary side controlled			Primary side controlled	Secondary side controlled			400 V DC-link	
Topology		Boost PFC ("classic": diode + FET)	Interleaved boost-PFC ("classic": diode + FET)	Bridgeless-PFC (Vienna)	LLC	LLC	ZVS	(i)TTF	Full-bridge	
Switching device	High-side	SiC diode Gen5	SiC diode Gen5	CoolMOS™ C7, P7	CoolMOS™ CFD2, P7	CoolMOS™ CFD2, P7	CoolMOS™ CFD2	CoolMOS™ C7, P7	CoolMOS™ C7 <sup>2)</sup> , P7 <sup>3)</sup>	
	Low-side	CoolMOS™ C7, P7	CoolMOS™ C7, P7	CoolMOS™ C7, P7	CoolMOS™ CFD2, P7	CoolMOS™ CFD2, P7	CoolMOS™ CFD2	CoolMOS™ C7, P7	CoolMOS™ C7 <sup>2)</sup> , P7 <sup>3)</sup>	
Gate driver IC	High-side	n.a.	n.a.	2EDL	1EDI	IR(S)21834 IR(S)2183 IR(S)2184	2EDN <sup>1)</sup> 1EDN <sup>1)</sup>	2EDN <sup>1)</sup> 1EDN <sup>1)</sup>	2EDN <sup>1)</sup> 1EDN <sup>1)</sup>	2EDN <sup>1)</sup> 1EDN <sup>1)</sup>
	Low-side	2EDN 1EDN	2EDN 1EDN		2EDN 1EDN		2EDN <sup>1)</sup> 1EDN <sup>1)</sup>	2EDN <sup>1)</sup> 1EDN <sup>1)</sup>	2EDN <sup>1)</sup> 1EDN <sup>1)</sup>	2EDN <sup>1)</sup> 1EDN <sup>1)</sup>

<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

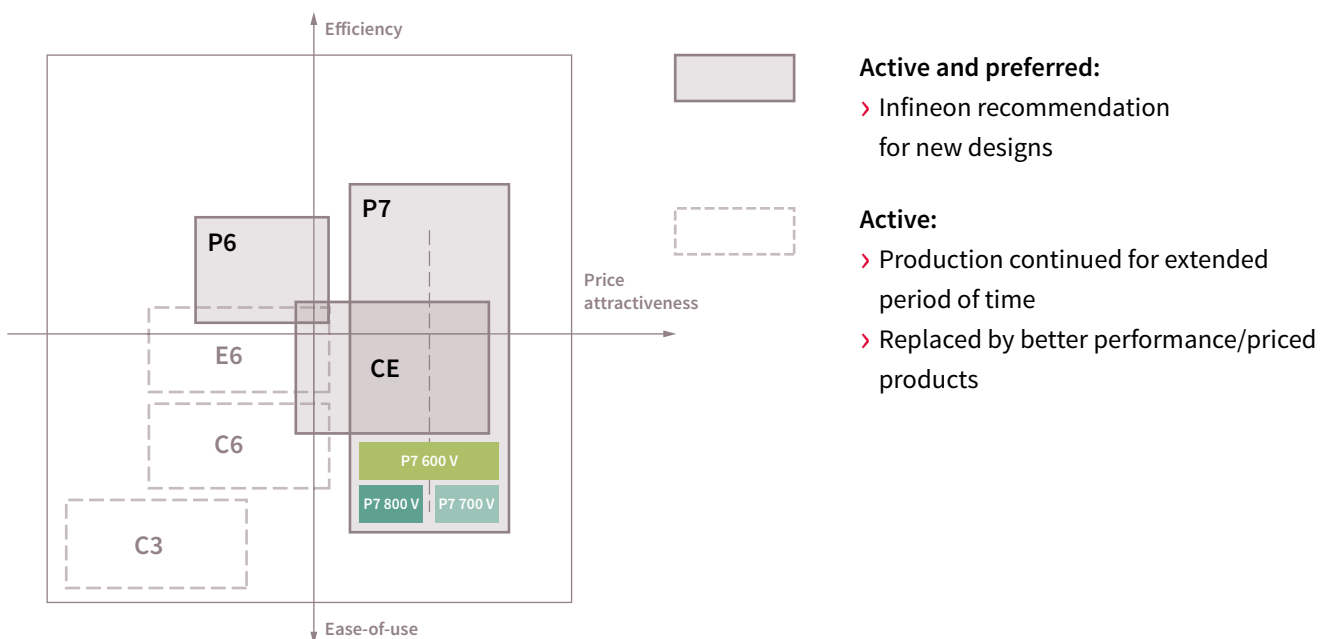


# CoolMOS™ for high and low power SMPS

In high power SMPS, high voltage superjunction MOSFETs address applications such as server, telecom, TV, PC power, solar, UPS and industrial power supplies. In 2017, we recommend to our customers the design-in of the CoolMOS™ C7 and G7, CFD2 as well as P6/P7 product families, which come with the most attractive balance of performance versus price.



In low power SMPS, high voltage superjunction MOSFETs address applications such as smartphone/tablet chargers, notebook adapters, TV sets and LED lighting. Increasingly, customers replace standard MOSFETs by superjunction MOSFETs in order to benefit from higher efficiency and an attractive cost-down roadmap going forward. In many designs, a trade-off decision between highest efficiency, good ease-of-use (typically EMI) and an attractive cost position needs to be made. The CoolMOS™ portfolio for low SMPS offers a number of choices for power engineers. For new designs in low power SMPS design Infineon recommends CoolMOS™ P7, P6 and CoolMOS™ CE.



## 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
	C6	2009	Replacement for C3 series Improved cost performance, light load efficiency and body diode capability but still easy to use	
	E6	2009	Optimized C6 series to give extra efficiency in DCM applications	
	P6	2012	Price/performance technology with 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 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	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
Fast body diode series	CFD	2004	Original fast body diode series, created for resonant topologies	Soft switching resonant topologies with hard commutation requirements requiring a fast body diode
	CFD2	2011	Replacement for CFD series Improved cost performance, light load efficiency and ease-of-use in EMI and low voltage overshoot	
	CFDA	2012	Automotive qualified fast body diode part. Same performance as CFD2	
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 easy to 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 easy to use for hard switching topologies and excellent performance in resonant topologies such as LLC

## 500 V CoolMOS™ CP

ACTIVE



$R_{DS(on)}$ [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		IPI50R140CP	IPB50R140CP	
199	IPP50R199CP	IPA50R199CP	IPW50R199CP		IPI50R199CP	IPB50R199CP	
250	IPP50R250CP	IPA50R250CP	IPW50R250CP		IPI50R250CP	IPB50R250CP	
299	IPP50R299CP	IPA50R299CP	IPW50R299CP		IPI50R299CP	IPB50R299CP	
350	IPP50R350CP	IPA50R350CP	IPW50R350CP		IPI50R350CP		
399	IPP50R399CP	IPA50R399CP	IPW50R399CP	IPD50R399CP	IPI50R399CP		
520	IPP50R520CP	IPA50R520CP		IPD50R520CP			IPS50R520CP

500 V CoolMOS™ C3 **ACTIVE**

$R_{DS(on)}$ [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)
70					SPW52N50C3	
110					SPW32N50C3	
190	SPP21N50C3	SPI21N50C3	SPB21N50C3	SPA21N50C3	SPW21N50C3	
280	SPP16N50C3		SPB16N50C3	SPA16N50C3	SPW16N50C3	
380	SPP12N50C3	SPI12N50C3	SPB12N50C3	SPA12N50C3		
600	SPP08N50C3	SPI08N50C3		SPA08N50C3		SPD08N50C3
950	SPP04N50C3		SPB04N50C3			SPD04N50C3
1400						SPD03N50C3
3000						SPD02N50C3

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

$R_{DS(on)}$ [mΩ]	TO-220	TO-220 FullPAK	TO-247	TO-252 (DPAK)	TO-251 (IPAK)	TO-251 (IPAK Short Lead)	SOT-223	TO-200 FullPAK Narrow Lead
190	IPP50R190CE	IPA50R190CE	IPW50R190CE					
280	IPP50R280CE	IPA50R280CE	IPW50R280CE	IPD50R280CE				
380	IPP50R380CE	IPA50R380CE		IPD50R380CE				
500	IPP50R500CE	IPA50R500CE		IPD50R500CE				IPAN50R500CE
650		IPA50R650CE		IPD50R650CE			IPN50R650CE	
800		IPA50R800CE		IPD50R800CE			IPN50R800CE	
950		IPA50R950CE		IPD50R950CE	IPU50R950CE		IPN50R950CE	
1400				IPD50R1K4CE	IPU50R1K4CE		IPN50R1K4CE	
2000				IPD50R2K0CE	IPU50R2K0CE		IPN50R2K0CE	
3000				IPD50R3K0CE	IPU50R3K0CE		IPN50R3K0CE	

600 V CoolMOS™ CP **ACTIVE**

$R_{DS(on)}$ [mΩ]	TO-220	TO-220 FullIPAK	TO-247	TO-252 (DPAK)	TO-262 (I <sup>2</sup> PAK)	TO-263 (D <sup>2</sup> PAK)	ThinPAK 8x8
45			IPW60R045CP				
75			IPW60R075CP				
99	IPP60R099CP		IPW60R099CP		IPI60R099CP	IPB60R099CP	
125	IPP60R125CP	IPA60R125CP	IPW60R125CP		IPI60R125CP	IPB60R125CP	
165	IPP60R165CP	IPA60R165CP	IPW60R165CP		IPI60R165CP	IPB60R165CP	
199	IPP60R199CP	IPA60R199CP	IPW60R199CP		IPI60R199CP	IPB60R199CP	IPL60R199CP
250	IPP60R250CP	IPA60R250CP					
299	IPP60R299CP	IPA60R299CP	IPW60R299CP		IPI60R299CP	IPB60R299CP	IPL60R299CP
385	IPP60R385CP	IPA60R385CP		IPD60R385CP	IPI60R385CP	IPB60R385CP	IPL60R385CP

[www.infineon.com/coolmos-500V](http://www.infineon.com/coolmos-500V)

[www.infineon.com/500v-ce](http://www.infineon.com/500v-ce)

[www.infineon.com/coolmos-600V](http://www.infineon.com/coolmos-600V)

600 V CoolMOST™ C3 **ACTIVE**

R <sub>DS(on)</sub> [mΩ]	TO-220	TO-251 (IPAK)	TO-251 (IPAK Short Lead)	TO-262 (I <sup>2</sup> PAK)	TO-263 (D <sup>2</sup> PAK)	TO-220 FullIPAK	TO-247	TO-252 (DPAK)
70							SPW47N60C3	
100							SPW35N60C3	
160	SPP24N60C3						SPW24N60C3	
190	SPP20N60C3			SPI20N60C3	SPB20N60C3	SPA20N60C3	SPW20N60C3	
280	SPP15N60C3					SPA15N60C3	SPW15N60C3	
380	SPP11N60C3			SPI11N60C3	SPB11N60C3	SPA11N60C3	SPW11N60C3	
600	SPP07N60C3	SPU07N60C3		SPI07N60C3	SPB07N60C3	SPA07N60C3		SPD07N60C3
750	SPP06N60C3					SPA06N60C3		SPD06N60C3
950	SPP04N60C3	SPU04N60C3			SPB04N60C3	SPA04N60C3		SPD04N60C3
1400	SPP03N60C3	SPU03N60C3	SPS03N60C3			SPA03N60C3		SPD03N60C3
3000	SPP02N60C3	SPU02N60C3	SPS02N60C3					
6000		SPU01N60C3						

600 V CoolMOST™ E6 **ACTIVE & PREFERRED**

R <sub>DS(on)</sub> [mΩ]	TO-220	TO-262 (I <sup>2</sup> PAK)	TO-263 (D <sup>2</sup> PAK)	TO-220 FullIPAK	TO-247	TO-252 (DPAK)	ThinPAK 8x8
190	IPP60R190E6			IPA60R190E6	IPW60R190E6		
280	IPP60R280E6			IPA60R280E6	IPW60R280E6		
380	IPP60R380E6			IPA60R380E6		IPD60R380E6	
450	IPP60R450E6			IPA60R450E6		IPD60R450E6	
520	IPP60R520E6			IPA60R520E6		IPD60R520E6	
600	IPP60R600E6			IPA60R600E6		IPD60R600E6	
750	IPP60R750E6			IPA60R750E6		IPD60R750E6	

600 V CoolMOST™ C6 **ACTIVE & PREFERRED**

R <sub>DS(on)</sub> [mΩ]	TO-220	TO-251 (IPAK)	TO-262 (I <sup>2</sup> PAK)	TO-263 (D <sup>2</sup> PAK)	TO-220 FullIPAK	TO-247	TO-252 (DPAK)	ThinPAK 5x6
41						IPW60R041C6		
70						IPW60R070C6		
74	IPP60R074C6							
99	IPP60R099C6			IPB60R099C6	IPA60R099C6	IPW60R099C6		
125	IPP60R125C6			IPB60R125C6	IPA60R125C6	IPW60R125C6		
160	IPP60R160C6			IPB60R160C6	IPA60R160C6	IPW60R160C6		
190	IPP60R190C6		IPI60R190C6	IPB60R190C6	IPA60R190C6	IPW60R190C6		
280	IPP60R280C6		IPI60R280C6	IPB60R280C6	IPA60R280C6	IPW60R280C6		
380	IPP60R380C6		IPI60R380C6	IPB60R380C6	IPA60R380C6		IPD60R380C6	
520	IPP60R520C6				IPA60R520C6		IPD60R520C6	
600	IPP60R600C6	IPI60R600C6		IPB60R600C6	IPA60R600C6		IPD60R600C6	
950	IPP60R950C6	IPI60R950C6		IPB60R950C6	IPA60R950C6		IPD60R950C6	
1400	IPP60R1K4C6	IPI60R1K4C6					IPD60R1K4C6	
1500								IPL60R1K5C6S
2000		IPI60R2K0C6					IPD60R2K0C6	
2100								IPL60R2K1C6S
3300							IPD60R3K3C6	

[www.infineon.com/c3](http://www.infineon.com/c3)

[www.infineon.com/coolmos-600v](http://www.infineon.com/coolmos-600v)

[www.infineon.com/c6e6](http://www.infineon.com/c6e6)

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

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	IPA60R800CE			IPD60R800CE		IPS60R800CE		IPAN60R800CE
1000	IPA60R1K0CE			IPD60R1K0CE	IPU60R1K0CE	IPS60R1K0CE	IPN60R1K0CE	
1500	IPA60R1K5CE			IPD60R1K5CE	IPU60R1K5CE	IPS60R1K5CE	IPN60R1K5CE	
2100				IPD60R2K1CE	IPU60R2K1CE	IPS60R2K1CE	IPN60R2K1CE	
3400				IPD60R3K4CE	IPU60R3K4CE	IPS60R3K4CE	IPN60R3K4CE	

600 V CoolMOS™ P6 **ACTIVE & PREFERRED**

R <sub>DS(on)</sub> [mΩ]	TO-220	TO-263 (D <sup>2</sup> PAK)	TO-220 FullPAK	TO-247	TO-247 4pin	TO-252 (DPAK)	ThinPAK 5x6	ThinPAK 8x8
41				IPW60R041P6	IPZ60R041P6			
70				IPW60R070P6	IPZ60R070P6			
99	IPP60R099P6		IPA60R099P6	IPW60R099P6	IPZ60R099P6			
125	IPP60R125P6		IPA60R125P6	IPW60R125P6	IPZ60R125P6			
160	IPP60R160P6	IPB60R160P6	IPA60R160P6	IPW60R160P6				
180								IPL60R180P6
190	IPP60R190P6	IPB60R190P6	IPA60R190P6	IPW60R190P6				
210								IPL60R210P6
230	IPP60R230P6	IPB60R230P6	IPA60R230P6	IPW60R230P6				
255								IPL60R255P6
280	IPP60R280P6	IPB60R280P6	IPA60R280P6	IPW60R280P6				
330/360	IPP60R330P6	IPB60R330P6	IPA60R330P6	IPW60R330P6			IPL60R360P6S	
380	IPP60R380P6	IPB60R380P6	IPA60R380P6			IPD60R380P6		
600	IPP60R600P6	IPB60R600P6	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 4pin	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 CoolMOST™ 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 (DPAK)	ThinPAK 8x8
28		IPT60R028G7					
50		IPT60R050G7					
80		IPT60R080G7					
102		IPT60R102G7					
125		IPT60R125G7					
150		IPT60R150G7					

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

R <sub>DS(on)</sub> [mΩ]	TO -220	TO-220 FullPAK	TO-247	TO-247 4pin	TO-252 (DPAK)	TO-220 FullPAK Wide Creepage	ThinPAK
37			IPW60R037P7	IPZ60R037P7			
180	IPP60R180P7	IPA60R180P7	IPW60R180P7		IPD60R180P7	IPAW60R180P7S	
185							IPL60R185P7
360	IPP60R360P7	IPA60R360P7			IPD60R360P7	IPAW60R360P7S	
365							IPL60R365P7
600	IPP60R600P7				IPD60R600P7		

650 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)
70					SPW47N65C3	
190	SPP20N65C3			SPA20N65C3		
280		SPI15N65C3		SPA15N65C3		
380	SPP11N65C3	SPI11N65C3		SPA11N65C3		
600	SPP07N65C3			SPA07N65C3		

650 V CoolMOST™ E6 **ACTIVE & PREFERRED**

R <sub>DS(on)</sub> [mΩ]	TO-220	TO-251 (IPAK Short Lead)	TO-262 (I <sup>2</sup> PAK)	TO-263 (D <sup>2</sup> PAK)	TO-220 FullPAK	TO-247	TO-252 (DPAK)	ThinPAK 8x8
190	IPP65R190E6				IPA65R190E6	IPW65R190E6		IPL65R190E6
250							IPD65R250E6	
280	IPP65R280E6		IPi65R280E6	IPB65R280E6	IPA65R280E6	IPW65R280E6		
310								IPL65R310E6
380	IPP65R380E6				IPA65R380E6		IPD65R380E6	
420								IPL65R420E6
600	IPP65R600E6	IPS65R600E6			IPA65R600E6		IPD65R600E6	
660								IPL65R660E6

650 V CoolMOS™ C6 **ACTIVE & PREFERRED**

$R_{DS(on)}$ [mΩ]	TO-220	TO-251 (IPAK Short Lead)	TO-262 (I <sup>2</sup> PAK)	TO-263 (D <sup>2</sup> PAK)	TO-220 FullIPAK	TO-247	TO-252 (DPAK)	ThinPAK 5x6
37						IPW65R037C6		
70						IPW65R070C6		
74	IPP65R074C6							
99	IPP65R099C6		IPI65R099C6	IPB65R099C6	IPA65R099C6	IPW65R099C6		
190	IPP65R190C6		IPI65R190C6	IPB65R190C6	IPA65R190C6	IPW65R190C6		
250							IPD65R250C6	
280	IPP65R280C6		IPI65R280C6	IPB65R280C6	IPA65R280C6	IPW65R280C6		
380	IPP65R380C6		IPI65R380C6	IPB65R380C6	IPA65R380C6		IPD65R380C6	
600	IPP65R600C6		IPI65R600C6	IPB65R600C6	IPA65R600C6		IPD65R600C6	
650								IPL65R650C6S
950		IPS65R950C6					IPD65R950C6	
1000								IPL65R1K0C6S
1400		IPS65R1K4C6					IPD65R1K4C6	
1500								IPL65R1K5C6S

650 V CoolMOS™ CFD2 **ACTIVE & PREFERRED**

$R_{DS(on)}$ [mΩ]	TO-220	TO-262 (I <sup>2</sup> PAK)	TO-263 (D <sup>2</sup> PAK)	TO-220 FullIPAK	TO-247	TO-252 (DPAK)	ThinPAK 8x8
41					IPW65R041CFD		
80					IPW65R080CFD		
110	IPP65R110CFD	IPI65R110CFD	IPB65R110CFD	IPA65R110CFD	IPW65R110CFD		
150	IPP65R150CFD	IPI65R150CFD	IPB65R150CFD	IPA65R150CFD	IPW65R150CFD		
165							IPL65R165CFD
190	IPP65R190CFD	IPI65R190CFD	IPB65R190CFD	IPA65R190CFD	IPW65R190CFD		
210							IPL65R210CFD
310	IPP65R310CFD	IPI65R310CFD	IPB65R310CFD	IPA65R310CFD	IPW65R310CFD		
340							IPL65R340CFD
420	IPP65R420CFD	IPI65R420CFD	IPB65R420CFD	IPA65R420CFD	IPW65R420CFD	IPD65R420CFD	
460							IPL65R460CFD
660	IPP65R660CFD	IPI65R660CFD	IPB65R660CFD	IPA65R660CFD	IPW65R660CFD	IPD65R660CFD	
725							IPL65R725CFD
950						IPD65R950CFD	
1400						IPD65R1K4CFD	

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

$R_{DS(on)}$ [mΩ]	TO-220	TO-220 FullIPAK	TO-247	TO-252 (DPAK)	TO-251 (IPAK)	TO-251 (IPAK Short Lead)	SOT-223	TO-220 FullIPAK Narrow Lead
400		IPA65R400CE		IPD65R400CE		IPS65R400CE		
650		IPA65R650CE		IPD65R650CE		IPS65R650CE		IPAN65R650CE
1000		IPA65R1K0CE		IPD65R1K0CE		IPS65R1K0CE		
1500		IPA65R1K5CE		IPD65R1K5CE		IPS65R1K5CE	IPN65R1K5CE	

[www.infineon.com/c6e6](http://www.infineon.com/c6e6)

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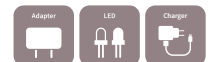


650 V CoolMOST™ C7 **ACTIVE & PREFERRED**

R <sub>DS(on)</sub> [mΩ]	TO-220	TO-263 (D <sup>2</sup> PAK)	TO-220 FullPAK	TO-247	TO-247 4pin	TO-252 (DPAK)	ThinPAK 8x8
19				IPW65R019C7	IPZ65R019C7		
33							
45	IPP65R045C7	IPB65R045C7	IPA65R045C7	IPW65R045C7	IPZ65R045C7		
65	IPP65R065C7	IPB65R065C7	IPA65R065C7	IPW65R065C7	IPZ65R065C7		
70							IPL65R070C7
95	IPP65R095C7	IPB65R095C7	IPA65R095C7	IPW65R095C7	IPZ65R095C7		
99							IPL65R099C7
105							
125	IPP65R125C7	IPB65R125C7	IPA65R125C7	IPW65R125C7			
130							IPL65R130C7
190	IPP65R190C7	IPB65R190C7	IPA65R190C7	IPW65R190C7		IPD65R190C7	
195							IPL65R195C7
225	IPP65R225C7	IPB65R225C7	IPA65R225C7			IPD65R225C7	
230							IPL65R230C7

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

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		IPS70R600CE	
950		IPAW70R950CE	IPI70R950CE	IPSA70R950CE	IPD70R950CE		IPS70R950CE	
1000								IPN70R1K0CE
1400				IPSA70R1K4CE	IPD70R1K4CE		IPS70R1K4CE	
1500								IPN70R1K5CE
2000				IPSA70R2K0CE	IPD70R2K0CE		IPS70R2K0CE	IPN70R2K0CE
2100								

700 V CoolMOST™ 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	TO-247	TO-252 (DPAK)
360			IPS70R360P7S	IPA70R360P7S		IPD70R360P7S
600			IPS70R600P7S	IPA70R600P7S		IPD70R600P7S
900			IPS70R900P7S			IPD70R900P7S
1400			IPS70R1K4P7S			IPD70R1K4P7S

[www.infineon.com/c7](http://www.infineon.com/c7)  
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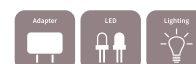
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## 800 V CoolMOS™ C3 ACTIVE &amp; PREFERRED



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	SPI08N80C3		SPA08N80C3		
900	SPP06N80C3			SPA06N80C3		SPD06N80C3
1300	SPP04N80C3			SPA04N80C3		SPD04N80C3
2700	SPP02N80C3			SPA02N80C3		SPD02N80C3

## 800 V CoolMOS™ CE ACTIVE &amp; 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)
310		IPA80R310CE				
460		IPA80R460CE				
650		IPA80R650CE				
1000		IPA80R1K0CE		IPD80R1K0CE	IPU80R1K0CE	
1400		IPA80R1K4CE		IPD80R1K4CE	IPU80R1K4CE	
2800				IPD80R2K8CE	IPU80R2K8CE	

## 800 V CoolMOS™ P7 ACTIVE &amp; 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)
280	IPP80R280P7	IPA80R280P7	IPW80R280P7	IPD80R280P7		
450	IPP80R450P7	IPA80R450P7		IPD80R450P7		
1400	IPP80R1K4P7	IPA80R1K4P7		IPD80R1K4P7	IPU80R1K4P7	IPS80R1K4P7
4500				IPD80R4K5P7	IPU80R4K5P7	

## 900 V CoolMOS™ C3 ACTIVE &amp; PREFERRED



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	IPP90R500C3	IPI90R500C3		IPA90R500C3	IPW90R500C3	
800	IPP90R800C3	IPI90R800C3		IPA90R800C3	IPW90R800C3	
1000	IPP90R1K0C3			IPA90R1K0C3	IPW90R1K0C3	
1200	IPP90R1K2C3	IPI90R1K2C3		IPA90R1K2C3	IPW90R1K2C3	IPD90R1K2C3

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

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[www.infineon.com/coolmos-900v](http://www.infineon.com/coolmos-900v)

## CoolMOST™ automotive



## 600 V CoolMOST™ CPA ACTIVE &amp; 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	105	31	93	-20 ... 20	60	0.5	TO-263
IPB60R199CPA	199	16	51	-20 ... 20	32	0.9	TO-263
IPB60R299CPA	299	11	34	-20 ... 20	22	1.3	TO-263
IPP60R099CPA	105	31	93	-20 ... 20	60	0.5	TO-220
IPW60R045CPA	45	60	230	-20 ... 20	150	0.29	TO-247
IPW60R075CPA	75	39	130	-20 ... 20	87	0.4	TO-247
IPW60R099CPA	105	31	93	-20 ... 20	60	0.5	TO-247
IPI60R099CPA	105	31	93	-20 ... 20	60	0.5	TO-262



## 650 V CoolMOST™ CFDA ACTIVE &amp; 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
IPP65R660CFDA	660	6	17	3.5...4.5	20	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

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# Industrial and general purpose gate driver ICs

Infineon's gate driver IC solutions are the expert's choice. With more than 200 reliable and efficient gate driver solutions, we provide a comprehensive portfolio for virtually any application. Addressing various application requirements, Infineon delivers solutions with an assortment of gate driver topologies, voltage classes, drive capability, features and package options to optimize performance, minimize size and reduce cost. Some discrete gate driver ICs are also available in bare die. The table below shows additional gate driver IC features available in the current portfolio.

Feature	Benefit
Active miller clamp	Protection against inadvertent dynamic turn-on because of parasitic effects
Brake chopper	Integrated brake IGBT driver with protection
Comparator	General purpose comparator included
Current amplifier	An independent op-amp for current measurement or over current detection
Current sense	Dedicated input detects over current events
Desaturation protection	Protects the switch (IGBT) at short circuit
Dedicated JFET control	Optimized to drive CoolSiC™ (SiC JFET)
Enable	Dedicated pin terminates all outputs
Error reporting with shutdown	Pin indicates fault conditions and programs shutdown time
Fault reporting	Indicates an over current or under voltage shutdown has occurred
Fault reset	Dedicated pin resets the DESAT-FAULT-state of the chip
Integrated bootstrap diode	Integrated bootstrap reduces BOM
Over current protection	Ensures safe application operation in case of over current
Programmable dead time	Dead time is programmable with external resistor for flexible design
Programmable shutdown	A shutdown feature has been designed into a pin
Shoot-through protection	Functionality such as dead time and interlock
Soft over current shutdown	Dedicated pin turns off the desaturated transistor, preventing over voltages
Shutdown	Dedicated pin disables the IC outputs
Separate sink/source outputs	Simplifies gate resistor selection, reduces BOM and improves dV/dt control
Self-oscillating	Integrated front end oscillator
Separate pin for logic ground	Dedicated pin for logic ground
Two-level turn-off	Lowers $V_{CE}$ overshoots at turn-off during short circuits or over current events
Under voltage lockout	Ensures safe application operation by avoiding unexpected driver behavior

Infineon's industrial and general purpose gate driver ICs utilize the following technologies:

- > (1) Coreless transformer technology (CT)
- > (2) Level-shifting silicon-on-insulator technology (LS-SOI)
- > (3) Level-shifting junction-isolation technology (LS-JI)
- > (4) Non-isolated technology (NI)

**Coreless transformer (CT) technology** uses semiconductor manufacturing processes to integrate a transformer consisting of metal spirals and silicon oxide insulation. The transformer is placed on the transmitter chip. Bond wires connect the upper winding with the receiver chip.

**Level-shifting silicon-on-insulator (LS-SOI) technology** is an advanced technique for MOS/CMOS fabrication. The silicon is separated by a buried silicon dioxide layer. The top layer, which is the silicon film, is used to produce the transistor. The bottom layer is used as the silicon substrate. The buried silicon dioxide provides an insulation barrier between the active layer and silicon substrate. Infineon's advanced process allows monolithic high voltage and low voltage circuitry construction with additional technology-enhanced features.

**Level-shifting junction isolation (LS-JI) technology** is a mature MOS/CMOS fabrication technique where silicon is used to produce the transistors. Infineon's proprietary HVIC and latch immune CMOS technologies enable ruggedized monolithic construction. The advanced process allows monolithic high voltage and low voltage circuitry construction with the best price for performance.

**Non-isolated (NI) technology** refers to gate drivers utilizing low voltage circuitry. Infineon's world-class fabrication techniques enable tiny low side drivers in DSO-8 and SOT-23 packages with high current capabilities.

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

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

# Product overview

To ease the selection process, this overview is structured along the configurations of the gate driver ICs, as opposed to by application topology.

Single high-side																														
Voltage class	$I_{ov}/I_o$ typ [mA]	Typ. prop delay: off/on [ns]	Base PN	Technology	Features														Package											
					Under voltage lockout	Separate pin for logic ground	Separate sink/source outputs	Over current protection	Current sense	Desaturation protection	Soft over current shutdown	Two-level turn-off	Fault reporting	Active miller clamp	Fault reset	Error reporting with shutdown	Enable	Dedicated JFET control	DSO-8	DSO-8 300mil	DSO-16	DSO-16 WB	DSO-19	DSO-36	DIP-8	SOT23-6				
1200	1300/900	300/300	1EDI05I12A	CT	✓	✓	✓													✓	✓									
	2000/2000	165/170	1ED020I12-(B,F)2	CT	✓	✓				✓			✓	✓	✓								✓							
		1750/1750	1ED020I12-(B,F)T	CT	✓	✓				✓		✓	✓	✓	✓								✓							
	2200/2300	300/300	1EDI10I12M	CT	✓	✓								✓								✓	✓							
	4000/3500	120/115	1EDI20N12A	CT	✓	✓	✓															✓	✓							
			1EDI20H12A	CT	✓	✓	✓																✓							
		300/300	1EDI20I12A	CT	✓	✓	✓																✓	✓						
			1EDI20I12M	CT	✓	✓									✓								✓	✓						
	4000/4000	80/80	1EDI30J12CP	CT	✓														✓	✓								✓		
	5900/6200	300/300	1EDI30I12M	CT	✓	✓										✓						✓	✓							
	7500/6800	300/300	1EDI40I12A	CT	✓	✓	✓															✓	✓							
	SRC*/2000	460/460	1EDS20I12SV	CT	✓	✓		✓		✓	✓	✓	✓						✓									✓		
	10000/9400	125/120	1EDI60H12A	CT	✓	✓	✓															✓	✓							
300/300		1EDI60I12A	CT	✓	✓	✓															✓	✓								
600	160/240	215/140	IRS25752	JI	✓																							✓		
	250/500	105/125	IR211(7,8)	JI	✓																	✓						✓		
			IR2127(1)	JI	✓			✓	✓				✓									✓						✓		
			IR2128	JI	✓			✓	✓				✓										✓						✓	
	290/600	105/125	IRS211(7,8)	JI	✓																	✓						✓		
			IRS2127	JI	✓			✓	✓				✓										✓					✓		
IRS21271			JI	✓			✓	✓	✓			✓										✓					✓			
500	1600/3300	200/170	IR2125	JI	✓			✓	✓				✓									✓				✓				
200	160/240	215/140	IRS20752	JI	✓																						✓			
100	160/240	215/140	IRS10752	JI	✓																						✓			

\*SRC = Turn on slew rate control

## Single low-side



Voltage class	$I_{O1}/I_{O2}$ typ [mA]	Typ. prop delay: off/on [ns]	Base PN	Technology	Under voltage lockout	Separate sink/source outputs	Over current protection	Current sense	Fault reporting	Error reporting with shutdown	Enable	Package				
					Features							DIP-8	SOT23-5	SOT23-6	WSON-6	
25	300/550	50/50	IR44252	NI	✓								✓			
			IRS44273	NI	✓								✓			
	1500/1500	50/50	IR44272	NI	✓						✓		✓			
			IR44273	NI	✓								✓			
20	4000/8000	19/19	1EDN(7,8)511B	NI	✓	✓					✓			✓		
			1EDN7512	NI	✓						✓			✓	✓	
5	1600/3300	200/150	IR2121	NI	✓		✓	✓	✓	✓		✓				

## Dual high-side



Voltage class	$I_{O1}/I_{O2}$ typ [mA]	Typ. prop delay: off/on [ns]	Base PN	Technology	Under voltage lockout	Separate pin for logic ground	Desaturation protection	Fault reporting	Fault reset	Package			
					Features					DSO-36			
1200	2000/2000	165/170	2ED020112-F2	CT	✓	✓	✓	✓	✓	✓			

## Dual low-side



Voltage class	$I_{O1}/I_{O2}$ typ [mA]	Typ. prop delay: off/on [ns]	Base PN	Technology	Under voltage lockout	Enable	Package				
					Features		DSO-8	DIP-8	WSON-8	TsSOP-8	
25	2300/3300	50/50	IRS4426	NI			✓				
			IRS44262	NI	✓		✓				
			IRS4427	NI			✓	✓			
			IRS4428	NI			✓				
		65/85	IR25600	NI			✓	✓			
			IR442(6,7)	NI			✓	✓			
20	5000/5000	19/19	2EDN752(3,4)F	NI	✓	✓	✓				
			2EDN752(3,4)G	NI	✓	✓			✓		
			2EDN752(3,4)R	NI	✓	✓				✓	
			2EDN852(3,4)F	NI	✓	✓	✓				
			2EDN852(3,4)G	NI	✓	✓			✓		
			2EDN852(3,4)R	NI	✓	✓					✓

## High-side and low-side



Voltage class	I <sub>OH</sub> /I <sub>OL</sub> typ [mA]	Typ. prop delay: off/on [ns]	Base PN	Technology	Features				Benefits					
					Under voltage lockout	Separate pin for logic ground	Integrated bootstrap diode	Shutdown	DSO-8	DSO-14	DSO-16 WB	DIP-8	DIP-14	VQFN-14
					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
1200	2000/2500	225/280	IR2213	JI	✓	✓		✓		✓		✓		
700	220/350	200/220	IR7106	JI	✓			✓						
600	200/350	200/220	IR2106	JI	✓			✓			✓			
			IR21064	JI	✓	✓			✓			✓		
			IR2301	JI	✓			✓			✓			
			IR25604	JI	✓			✓						
			IRS2301	JI	✓			✓						
			IR210(1,2)	JI	✓			✓			✓			
	210/360	150/160	IR2112	JI	✓			✓			✓		✓	
	250/500	105/125		JI	✓			✓			✓		✓	
	290/600	130/135		IRS2112	JI	✓	✓		✓			✓		✓
		150/160		IRS2101	JI	✓			✓			✓		
		200/220		IRS2106	JI	✓			✓			✓		
		IRS21064		JI	✓	✓			✓				✓	
	360/700	400/420		2EDL05I06B	SOI	✓		✓	✓					
	1900/2300	220/180		IR(S)2181	JI	✓			✓			✓		
				IR21814	JI	✓	✓			✓			✓	
				IRS21814	JI	✓	✓			✓			✓	✓
	2500/2500	94/120	IR2113	JI	✓	✓		✓			✓		✓	
			IR25607	JI	✓	✓		✓			✓			
			120/130	IRS2113	JI	✓	✓		✓			✓	✓	
	4000/4000	170/170	IRS2186	JI	✓			✓			✓			
IRS21864			JI	✓	✓			✓			✓			
IRS21867			JI	✓			✓							
500	2500/2500	94/120	IR2110	JI	✓	✓		✓		✓		✓		
	120/130	IRS2110	JI	✓	✓		✓			✓		✓		
200	290/600	150/160	IRS2005	JI	✓			✓				✓		
	1000/1000	60/60	IRS2011	JI	✓			✓			✓			
		75/80	IR2011	JI	✓			✓			✓			
	3000/3000	65/95	IR2010	JI	✓	✓		✓		✓		✓		

## Current sense



Voltage class	Base PN	Technology	Features			Package			
			Separate pin for logic ground	Over current protection	Current sense	DSO-8	DSO-16 WB	DIP-8	SOT23-5
			✓	✓	✓	✓	✓	✓	✓
1200	IR2277(1)	JI	✓	✓	✓		✓		
600	IR2172	JI		✓		✓		✓	
	IR2175	JI		✓	✓	✓		✓	
	IR2177(1)	JI	✓	✓	✓		✓		
	IR25750	JI		✓					✓



# Half-bridge



Voltage class	I <sub>o</sub> /I <sub>o</sub> , typ [mA]	Typ. prop delay: off/on [ns]	Base PN	Technology	Under voltage lockout	Separate pin for logic ground	Integrated bootstrap diode	Shoot-through protection	Over current protection	Desaturation protection	Soft over current shutdown	Fault reporting	Current Amplifier	Programmable shutdown	Programmable dead time	Comparator	Shutdown	Enable	Self-oscillating	DSO-8	DSO-14	DSO-18	DIP-8	DIP-14	SSOP-24	VQFN-14			
					Features															Package									
1200	1500/2500	85/85	2ED020112-FI	CT	✓			✓					✓			✓	✓												
	2000/3000	440/440	IR2214S	JI	✓	✓		✓		✓	✓														✓				
700	78/169	220/220	IR7304	JI	✓			✓												✓									
	1900/2300	270/680	IR7184	JI	✓			✓									✓			✓									
650	1500/2500	85/85	2ED020106-FI	CT	✓			✓									✓					✓							
600	78/169	220/220	IR2304	JI	✓			✓												✓			✓						
			IR25601	JI	✓			✓													✓								
			180/260	na	IR21531	JI	✓			✓						✓			✓		✓	✓			✓				
					IR21531D	JI	✓		✓	✓						✓			✓		✓	✓			✓				
					IR25603	JI	✓			✓							✓			✓		✓	✓			✓			
	IRS2153(1)D	JI			✓		✓	✓							✓			✓		✓	✓			✓					
	200/350	200/220	IR2108	JI	✓			✓													✓		✓						
			IR21084	JI	✓	✓		✓								✓						✓			✓				
			IR2308	JI	✓			✓														✓		✓					
			IR25606	JI	✓			✓														✓							
		200/750	IR2109	JI	✓			✓											✓		✓	✓		✓					
			IR21091	JI	✓			✓								✓			✓		✓	✓		✓					
			IR21094	JI	✓	✓		✓								✓		✓		✓	✓		✓		✓				
			IR2302	JI	✓			✓											✓		✓	✓		✓					
	210/360	150/680	IR2103	JI	✓			✓													✓		✓						
			IR2104	JI	✓			✓													✓		✓						
			IR25602	JI	✓			✓													✓		✓						
	220/480	500/500	IRS2890	JI	✓		✓	✓	✓			✓									✓								
	250/500	150/750	IR2111	JI	✓			✓													✓								
	290/600	150/150	IRS2304	JI	✓			✓													✓		✓						
			IRS2103	JI	✓			✓													✓		✓						
		150/680	IRS2104	JI	✓			✓													✓		✓						
			IRS2111	JI	✓			✓													✓		✓						
		200/220	IRS2(1,3)08	JI	✓			✓													✓		✓						
			IRS21084	JI	✓	✓		✓								✓					✓		✓		✓				
		200/750	IRS2109	JI	✓			✓											✓		✓		✓						
			IRS21091	JI	✓			✓								✓			✓		✓		✓		✓				
IRS21094			JI	✓	✓		✓								✓		✓		✓	✓		✓		✓					
360/700		300/310	2EDL05N06P	SOI	✓		✓	✓													✓	✓							
	400/420	2EDL05I06P	SOI	✓		✓	✓													✓	✓								
1900/2300	220/180	IR(S)2183	JI	✓			✓													✓		✓							
		IR(S)21834	JI	✓	✓		✓								✓					✓		✓		✓					
	270/680	IR(S)2184	JI	✓			✓													✓		✓		✓					
		IR21844	JI	✓	✓		✓								✓		✓		✓	✓		✓		✓					
		IRS21844	JI	✓	✓		✓								✓		✓		✓	✓		✓		✓		✓			
2000/3000	440/440	IR2114S	JI	✓	✓		✓		✓	✓	✓													✓					
2300/2800	300/310	2EDL23N06P	SOI	✓	✓	✓	✓	✓				✓						✓			✓								
	400/420	2EDL23I06P	SOI	✓	✓	✓	✓	✓				✓						✓			✓								
200	290/600	150/680	IRS2007	JI	✓			✓													✓								
			IRS2003	JI				✓													✓			✓					
			IRS2008	JI	✓			✓													✓								
			IRS2004	JI				✓												✓		✓							

### Three-phase



Voltage class	I <sub>OH</sub> /I <sub>OL</sub> typ [mA]	Typ. prop delay: off/on [ns]	Base PN	Technology	Under voltage lockout	Separate pin for logic ground	Integrated bootstrap diode	Shoot-through protection	Over current protection	Desaturation protection	Current amplifier	Brake chopper	Fault reporting	Shutdown	Enable	Package										
					Features										Package											
1200	250/500	700/750	IR223(3,5)	JI	✓	✓		✓	✓		✓		✓	✓		DSO-20 WB	DSO-28 WB	DIP-28	LCC-32	MQFP-64	TSSOP-28	VQFN-28	VQFN-34			
600	165/375	490/530	6ED003L06-F2	SOI	✓	✓		✓	✓				✓	✓		✓										
			6EDL04I06(N,P)T	SOI	✓	✓	✓	✓	✓					✓	✓		✓									
			6EDL04N06P	SOI	✓	✓	✓	✓	✓					✓	✓		✓									
	200/350	400/425	400/425	IR2136	JI	✓	✓		✓	✓				✓	✓		✓	✓	✓							
				IR21363	JI	✓	✓		✓	✓					✓	✓		✓	✓							
				IR2136(5,8)	JI	✓	✓		✓	✓					✓	✓		✓								
				IR21364	JI	✓	✓		✓	✓					✓	✓		✓								
		530/530	530/530	530/530	IRS2334	JI	✓			✓							✓							✓		
					IRS2336	JI	✓	✓		✓	✓					✓	✓		✓	✓						
					IRS2336D	JI	✓	✓	✓	✓	✓					✓	✓		✓	✓					✓	
	250/500	425/675	425/675	IR213(0,2)	JI	✓	✓		✓	✓		✓		✓	✓			✓	✓	✓						
				IR2131	JI	✓	✓		✓	✓					✓	✓			✓	✓	✓					
				IR2133	JI	✓	✓		✓	✓			✓		✓	✓			✓	✓	✓					
IR2135				JI	✓	✓		✓	✓			✓		✓	✓			✓	✓							
200	165/375	490/530	6ED003L02-F2	SOI	✓	✓		✓	✓				✓	✓								✓				
		530/530	6EDL04N02P	SOI	✓	✓	✓	✓	✓					✓	✓							✓				
1200	350/540	550/550	IR2238	JI	✓	✓		✓	✓	✓		✓	✓	✓						✓						

### Gate driver selection tool

To simplify the gate driver selection process, Infineon offers an online easy-to-use gate driver selection tool. By selecting a few key parameters, the tool quickly guides you in finding the right driver for your application.



Visit the gate driver selection tool by going to [www.infineon.com/gatedriver](http://www.infineon.com/gatedriver)

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



# 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-500V](http://www.infineon.com/coolmos-500V)

[www.infineon.com/coolmos-600V](http://www.infineon.com/coolmos-600V)

[www.infineon.com/coolmos-650V-700V](http://www.infineon.com/coolmos-650V-700V)

[www.infineon.com/coolmos-800V](http://www.infineon.com/coolmos-800V)

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

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## Evaluationboards and simulation models

[www.infineon.com/2kW-ZVS-evaluationboard](http://www.infineon.com/2kW-ZVS-evaluationboard)

[www.infineon.com/300W-PFC-evaluationboard](http://www.infineon.com/300W-PFC-evaluationboard)

[www.infineon.com/600W-LLC-eval](http://www.infineon.com/600W-LLC-eval)

[www.infineon.com/600W-LLC-evaluationboard-a](http://www.infineon.com/600W-LLC-evaluationboard-a)

[www.infineon.com/2.5kW-CCM-eval](http://www.infineon.com/2.5kW-CCM-eval)

[www.infineon.com/800W-PFC-eval](http://www.infineon.com/800W-PFC-eval)

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- > India ..... 000 800 4402 951 (English)
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Published by  
Infineon Technologies Austria AG  
9500 Villach, Austria

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Order number: B152-I0458-V1-7600-EU-EC  
Date: 04 / 2017

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