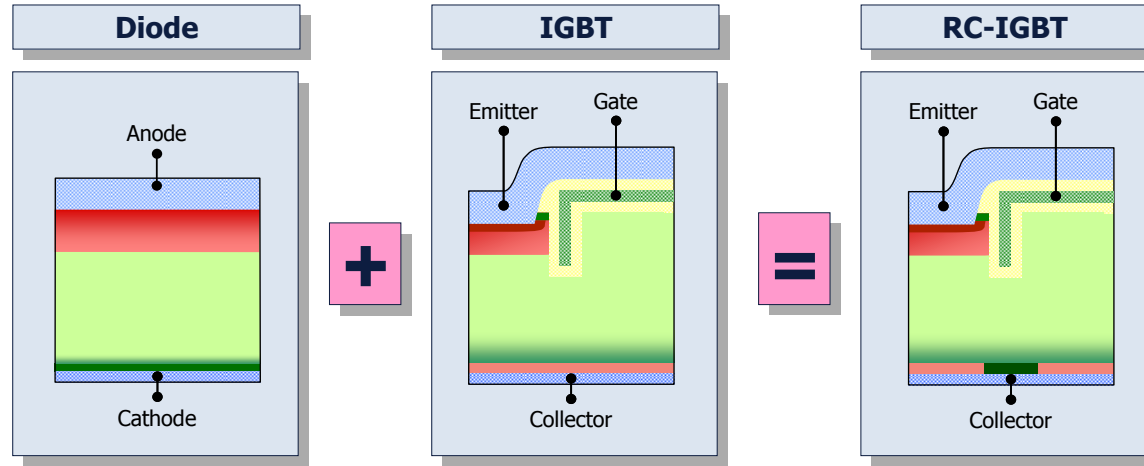


PCIM Major Home Appliances

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NEW INNOVATION – Reverse Conducting Technology for resonant switching and Drives



- **RC-D:** Infineon now offers the free wheeling diode monolithically integrated into the TRENCHSTOP IGBT-die for hard switching applications (**R**everse **C**onducting for **D**rives) and soft-switching applications **RC-H** (**R**everse **C**onducting for **H**eating)
- This leads to current classes <15A being available in D-PAK for drives and up to 40A for resonant switching in TO-247
- Same DC current rating of diode and IGBT

NEW RC-H5 Discrete IGBTs Family

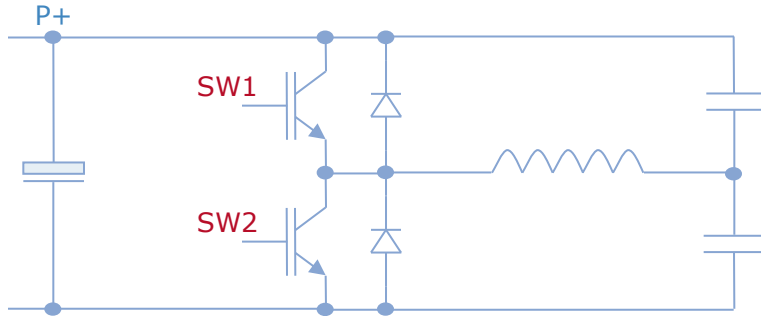
PCIM 2014, Nuremberg



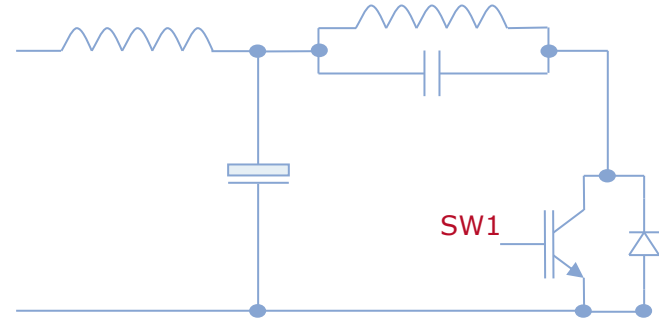
New RC-H5 Next Generation Reverse Conduction IGBTs for Induction Cooking Appliances



Half Bridge Topology: 650V



Single Ended Topology: 1200V/1350V




Reverse Conducting IGBTs designed specifically for soft switching and resonant topologies

RC-H5 family of devices optimized for the requirements of induction cooking appliances and inverter based microwave ovens

Table Top Cookers, Multi-Hob Stoves, Induction Rice Cookers, Inverter based Microwave Ovens, Multi-function Printers

TO-247

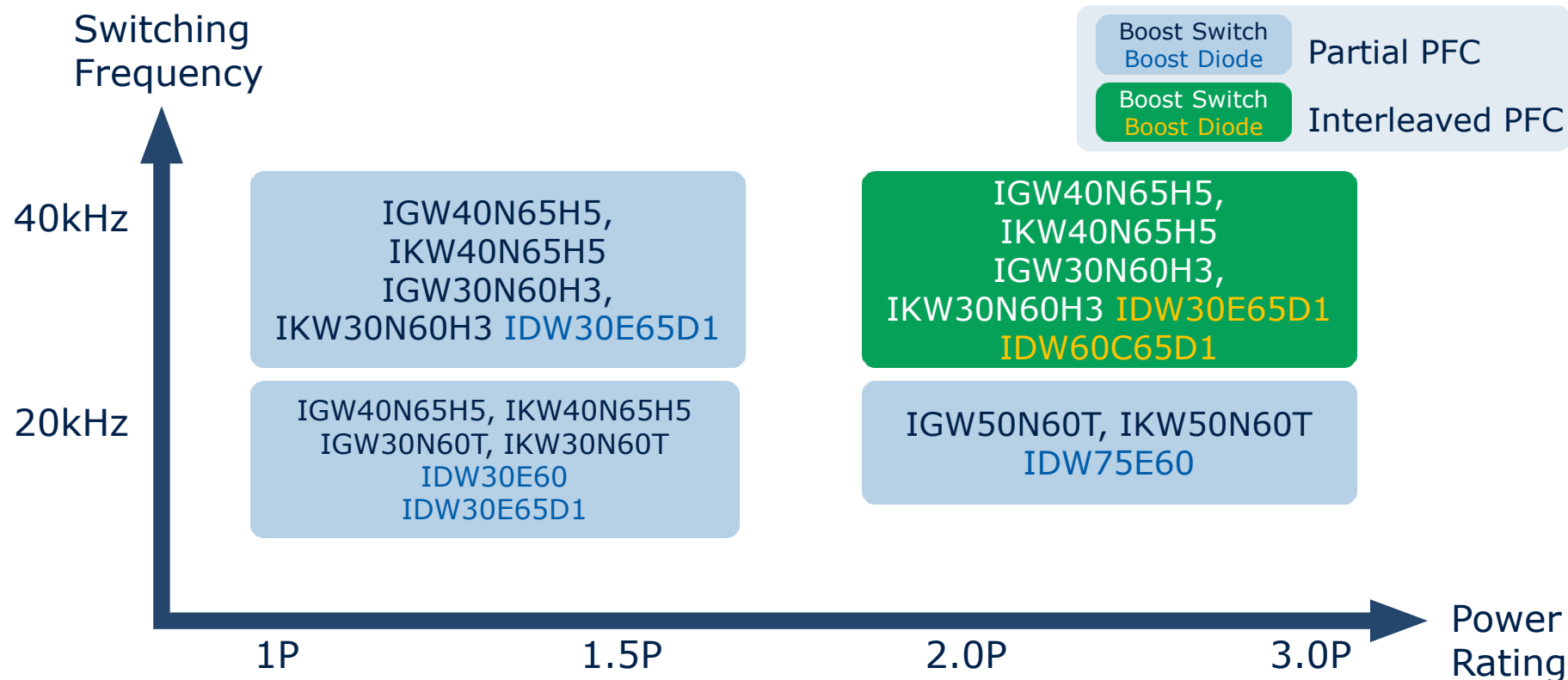
Continuous Collector Current at $T_c = 100^\circ\text{C}$	600V/650V	1100V	1200V	1350V	1600V
15A			IHW15N120R3		
20A	IHW20N65R5		IHW20N120R3 IHW20N120R5	IHW20N135R3 IHW20N135R5	
25A			IHW25N120R2		
30A		IHW30N110R3	IHW30N120R3	IHW30N135R3	IHW30N160R2
40A	IHW40N60R/RF IHW40N65R5		IHW40N120R3	IHW40N135R3	
50A	IHW50N65R5				

Rapid 1&2 Diodes

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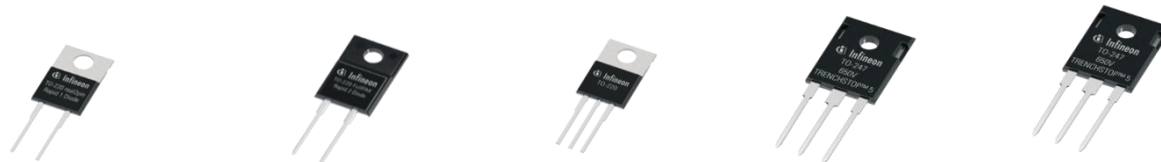
Recommended Infineon Products for Air Con PFC



* recommended with 1A anti-parallel diode if single IGBT is used

650V High Speed Power Silicon Diodes

Product Portfolio – Portfolio Extension



Rapid 1

	TO-220 (real 2-leg)	TO-220 FullPAK (real 2-leg)	TO-220 - 3 (Common Cathode)	TO-247	TO-247 - 3 (Common Cathode)
8A	IDP08E65D1				
15A	IDP15E65D1				
20A		IDV20E65D1 ¹ New			
30A	IDP30E65D1 New			IDW30E65D1	IDW30C65D1 ²
40A				IDW40E65D1	
60A					IDW60S65D1
75A					IDW75D65D1
80A					IDW80C65D1

Rapid 2

8A	IDP08E65D2	IDV08E65D2			
15A	IDP15E65D2	IDV15E65D2 ²		IDW15E65D2	
20A	IDP20E65D2 New		IDP20C65D2 New		IDW20C65D2
30A	IDP30E65D2 New	IDV30E65D2 New	IDP30C65D2 New		IDW30C65D2
40A	IDP40E65D2			IDW40E65D2	

¹ – Engineering samples – Apr14

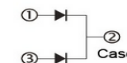
Mass production -May14

² – Engineering samples - Nov14

Mass production – Dec14 – early engineering samples are available now

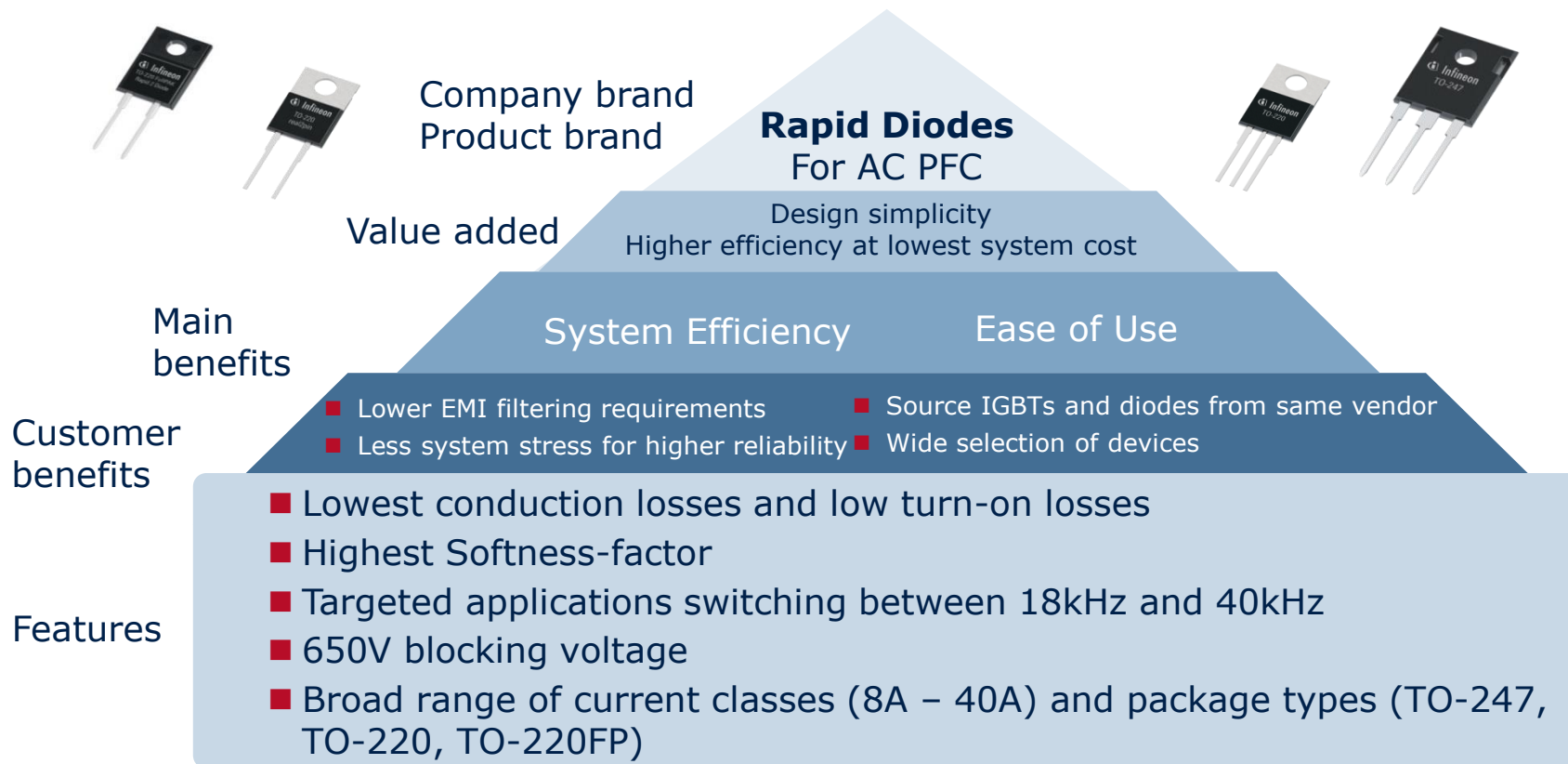


Single Die



Common-Cathode

Rapid Diodes for Air Con PFC



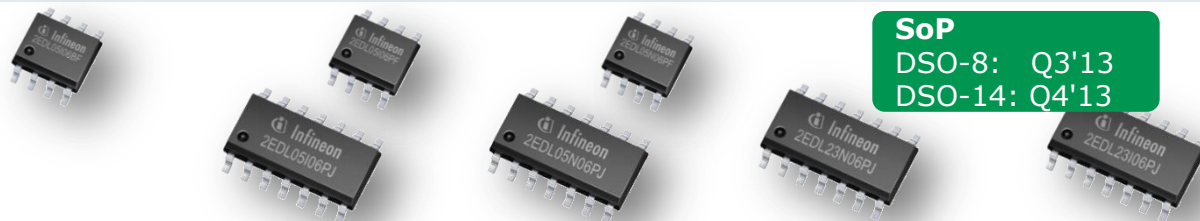
EICEDRIVER™

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EiceDRIVER™ Compact: 2EDL Half Bridge Driver ICs

Feature Comparison



Sales Code and Package (150mil)	2EDL05I06BF (DSO-8)	2EDL05I06PF (DSO-8) 2EDL05I06PJ (DSO-14)	2EDL05N06PF (DSO-8) 2EDL05N06PJ (DSO-14)	2EDL23I06PJ (DSO-14)	2EDL23N06PJ (DSO-14)
Applications	Switched reluct. motor drive, TTF, PFC	Fans, pumps, MHA, GP drives (GPI) DSO-14: Industrial	TV, LV-drives, PC, e-bike, adapter (SMPS), battery DSO-14: server/telecom	Multi-oven IH cookers, fans, pumps, drives	TV, adapter (SMPS), server/telecom, PC, e-scooter, forklift, battery
Blocking Voltage	600V			600V	
Output Current	0.25 A / -0.5 A			1.8A / -2.3A	
Integr. Bootstrap Function	Ultrafast BS diode and BS resistor			Ultrafast BS diode and BS resistor	
UVLO (latest turn-off)	IGBT (10.9 V)		MOSFET (7.5 V)	IGBT (10.9 V)	MOSFET (7.5 V)
Features	No deadtime No interlock	Deadtime, interlock		Deadtime, interlock enable, fault, OCP	
Status	ES in DSO-8 available			ES available	

Infineon's new **EiceDRIVER™ Compact 2EDL Halfbridge with SOI-LS** is driving IGBTs and MOSFETs with integrated Ultrafast Bootstrap Diode.

EiceDRIVER™ Compact: 6ED 3~ Bridge ICs

Feature Comparison



Sales Code	6ED003L02-F2	6EDL04N02PR	6ED003L06-F2	6EDL04I06NT	6EDL04I06PT	6EDL04N06PT
SP - ordering code	SP000919390	SP000926072	SP000929928	SP000926082	SP000926088	SP000926102
Status	in production	in production	in production	in production	in production	in production
Blocking Voltage	200V	200V	600V	600V	600V	600V
Input Logic	negative	positive	negative	negative	positive	positive
Integr. Bootstrap Function	no	yes	no	yes	yes	yes
Optimized for	IGBT	MOSFET	IGBT	IGBT	IGBT	MOSFET
Package	PG-TSSOP-28	PG-TSSOP-28	PG-DSO-28	PG-DSO-28	PG-DSO-28	PG-DSO-28

Infineon's EiceDRIVER™ **6ED 2nd Gen.** is driving IGBTs and MOSFETs with various features as **Integrated** Bootstrap Function.

EiceDRIVER™ - Driver IC Evaluation Boards

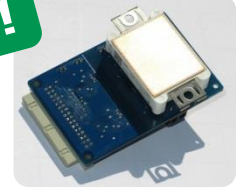
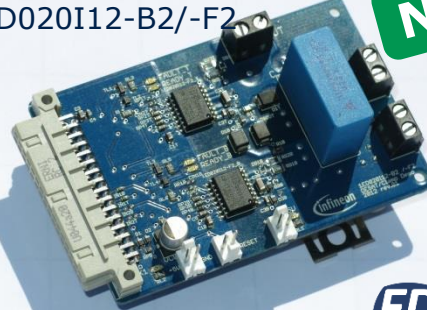


Eval Board for
6EDL04I06PT



Eval Board for
1ED020I12-B2/-F2

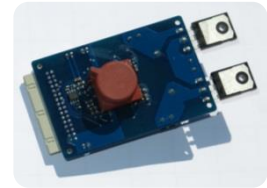
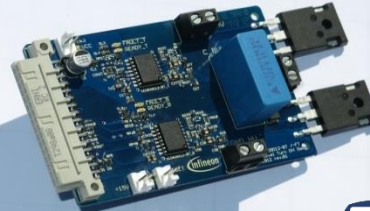
New!



Eval Board for
2ED020I12-F2



Eval Board for
1ED020I12-BT/-FT



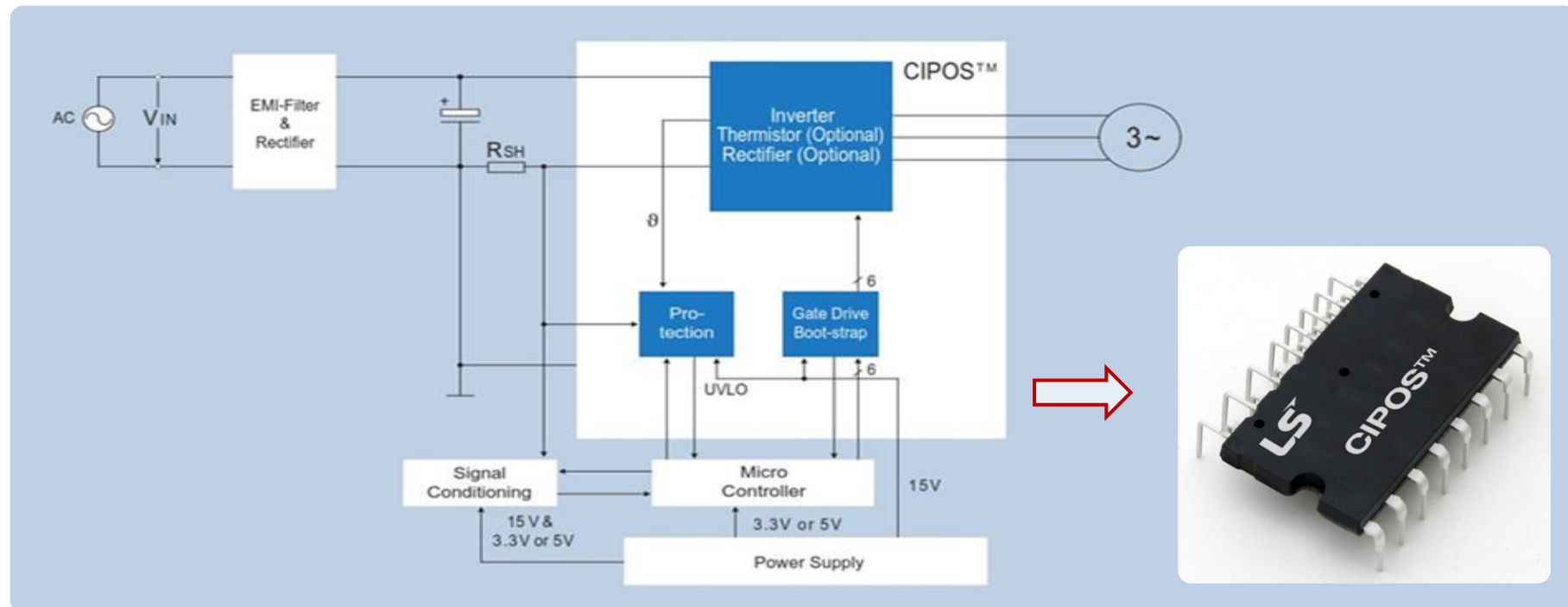
CIPOS™ Mini

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Intelligent Power Modules (IPM) 600V/4-30A

■ Simplifies Power Design



Intelligent Power Modules (IPM) 600V/4-30A

■ Simplifies Power Design

CIPOS™	Optimized for Low EMI	General Use (RC-IGBT incl.)	Built in bridge rectifier	Optimized for Washing Machine	Switched Reluctance Motor
	IKCM L Series 10-20A	IGCM Series 4-30A	IGCM B Series 4-10A	IKCM H Series 10-15A	IKCM R Series 15-30A *
Application	Air Conditioning Units		Washing Machine		Vacuum Cleaner
	Industrial Applications: Fan, Pump, GPI, Textile Machine		Refrigerator		

* = development will be completed by CY2014



ENERGY EFFICIENCY MOBILITY SECURITY

Innovative semiconductor solutions for energy efficiency, mobility and security.

