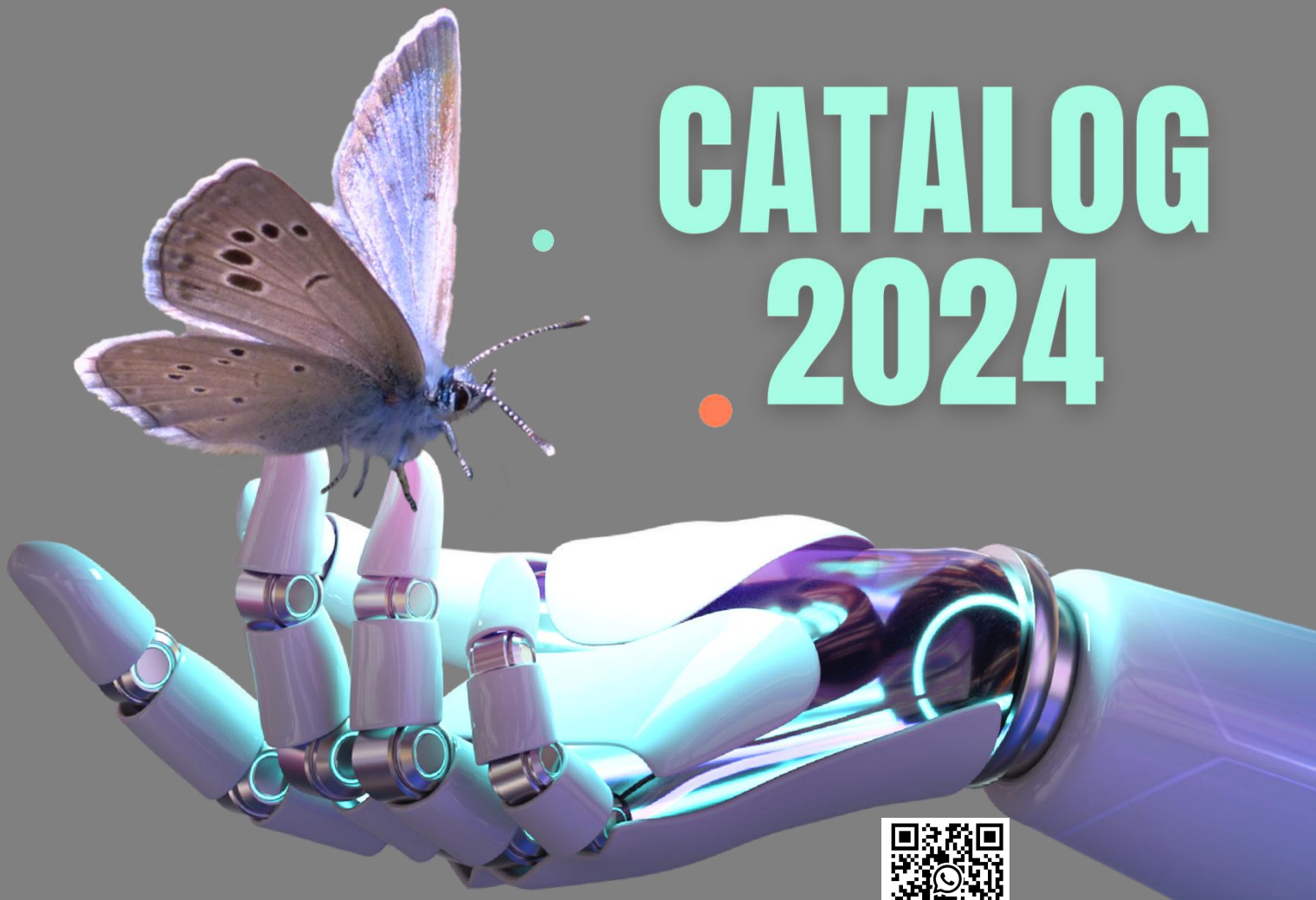
RELEC
ELECTRONICS

CATALOG 2024



一，Power ICs
二 MCU (Micro-controller)
三 Memories
四 Sensors
五 Batteries management
六 Motor control ICs

1、POWER ICs

- **MOS OR MOSFET FOR AUTOMOBILE:**

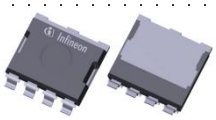
Our Infineon automotive MOSFETs are used to drive motors in a wide range of applications such as pumps, fans, ventilation, seat adjustment, or sunroofs. They are also used in safety-critical applications such as electric power steering (EPS), electric braking, and injection systems. Furthermore, they act as switches in On board chargers, HV/LV DC/DC converters, battery management systems, and inverters.



TYPES OF AUTOMOTIVE MOSFET

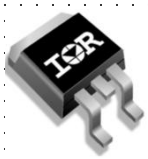
IPP80N03S4L-03

Parameter: V_{DS}max = 30V $R_{DS\ (on)}$@10V max = 2.7 mΩ I_D @25° C max = 80A



IAUAN04S7N004n

Parameter: V_{DS}max = 40V $R_{DS\ (on)}$@10V max = 0.39 mΩ I_D @25° C max = 280A



AUIRF3710ZS

Parameter: V_{DS}max = 100V $R_{DS\ (on)}$@10V max = 18mΩ I_D @25° C max = 59A

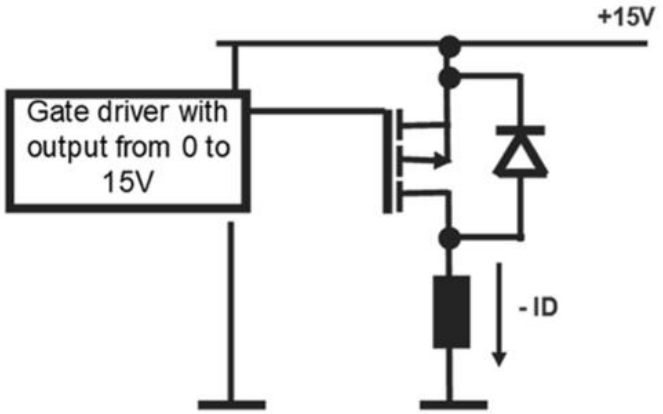
IPB65R050CFD7A

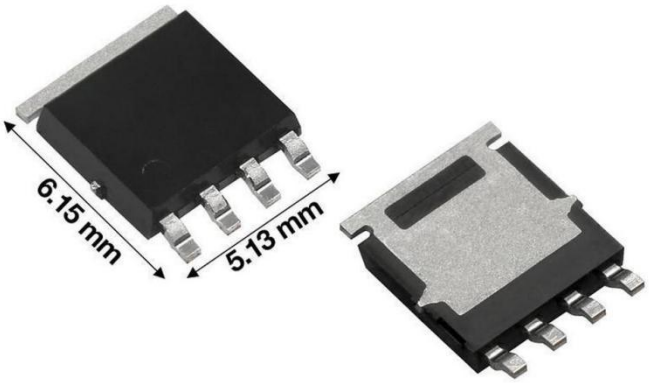
Parameter: V_{DS}max = 650V $R_{DS\ (on)}$@10V max = 50mΩ I_D @25° C max = 45A

IPB80R290C3A

Parameter: V_{DS}max = 800V $R_{DS\ (on)}$@10V max = 290mΩ I_D @25° C max = 17A

- **MOS OR MOSFET FOR OTHER INDUSTRIES**





You'll find a variety of power MOSFETs for industrial applications across the Infineon portfolio, including P-channel MOSFETS as well as N-channel MOSFETS that include 12 V-40 V, 45 V-80 V, and 85 V-300 V classes. Our product portfolio also includes the 500 V-950 V CoolMOS™ N-channel power MOSFET, the -250 V to 600 V small signal/small power MOSFET, the 60 V-600 V N-channel depletion mode MOSFET, the 20 V-60 V complementary MOSFET, and the 400 V-2000 V silicon carbide MOSFET.

They are applied to lighting, TVs, audio equipment, servers, telecom infrastructure, solar, EV charging, DC-DC converters, and many more.

ISK018NE1LM7

Parameter: V_{DS}max = 15V $R_{DS\ (on)}$@10V max = 2.15mΩ I_D @25℃ max = 129A

IRF5801

Parameter: V_{DS}max = 200V $R_{DS\ (on)}$@10V max = 2200mΩ I_D @25℃ max = 0.6A

IPB65R045C7

Parameter: V_{DS}max = 650V $R_{DS\ (on)}$@10V max = 45mΩ I_D @25℃ max = 46A

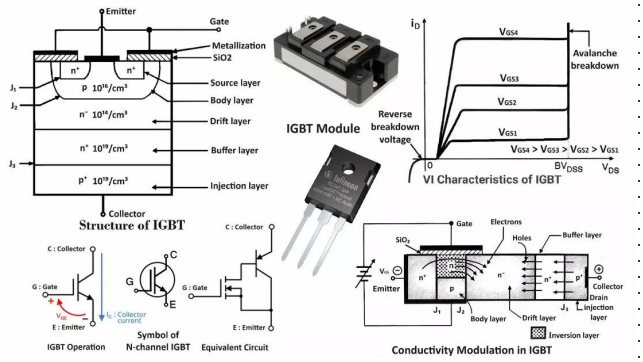
IPLK80R2K0P7

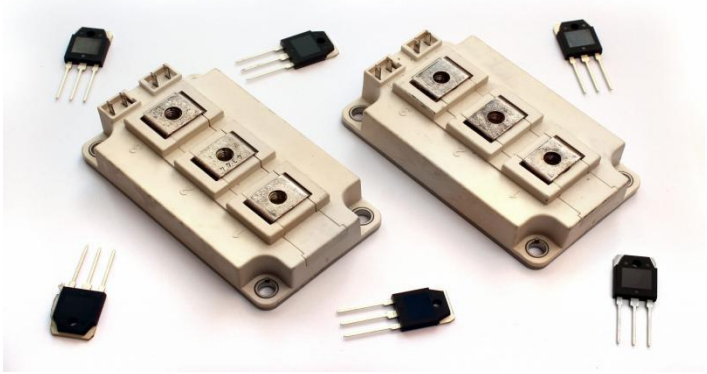
Parameter: V_{DS}max = 800V $R_{DS\cdot(on)}$@10Vmax = 2000mΩ I_D@25℃ max = 3A

IPW95R310PFD7

Parameter: V_{DS}max = 950V $R_{DS\cdot(on)}$@10Vmax = 310mΩ I_D@25℃ max = 17.5A

- **IGBT(INTEGRATED A MOS AND A TRANSISTOR)**





Infineon's IGBT product portfolio provides a broad variety of different devices for a wide range of applications in the fields of automotive, traction, energy transmission, industrial, and consumer systems. These solutions offer very low power losses in the forward and blocking state, only require low drive power, and have a high efficiency.

From 600 V to 1600 V, Infineon offers a wide range of IGBT voltage classes to meet the different voltage requirements of a wide range of applications. These devices are suitable for systems like general-purpose inverters, solar inverters, EV charging equipment, UPS, induction heating systems, major household appliances, welding equipment, and SMPS.

Discrete IGBT packages from Infineon include surface mount device (SMD) packages and through-hole (TO) packages. Automotive-qualified IGBT discretes are also available.

AUTOMOTIVE IGBT

AUIRG4PC40S-E

Parameter:

V_{GE}max = 600V I_{Cpuls}max = 120A P_{tot}max = 160W I_C@25℃max = 60A

	AIKQ200N75CP2 Parameter: V_{CE}max = 750V I_{Cpuls}max = 600A P_{tot} max = 1071W I_C@25℃max = 200A	
	AIGW50N65H5 Parameter: V_{CE}max = 650V I_{Cpuls}max = 150A P_{tot} max = 270W I_C@25℃max = 80A	
	AUIRG4PH50S Parameter: V_{CE}max = 1200V I_{Cpuls}max = 99A P_{tot} max = 200W I_C@25℃max = 57A	

2、MCU (Micro-controller)

A microcontroller unit (MCU) contains a CPU, memory, and input/output peripherals on a single integrated circuit (IC) chip and works as a standalone small computer. This allows for a reduction in power consumption, more compact designs, and cost savings. Additionally, microcontrollers can provide functional safety and security for embedded systems.

Increasingly, it is becoming critical that microcontrollers are equipped with advanced security features to avoid security compromises and prevent malware attacks. For this reason, the new generation of 32-bit MCUs provides robust protection for a range of embedded system applications

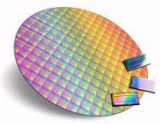
	32-bit AURIX™ TriCore™ Microcontroller:TC2XX, TC3XX, TC4X	
	32-bit PSoC™ Arm® Cortex® Microcontroller	
	32-bit TRAVEO™ T2G Arm® Cortex® Microcontroller	

	32-bit XMC™ Industrial Microcontroller Arm® Cortex®-M
	Sensing controller
	MOTIX™ MCU | 32-bit motor control SoC (system-on-chip)
	Microcontroller Safety Products PRO-SIL™/ ISO26262
	FM3 32-bit Arm® Cortex®-M3 Microcontroller (MCU) Families
	FM4 32-bit Arm® Cortex®-M4 Microcontroller (MCU) Families
	FM0+ 32-bit Arm® Cortex®-M0+ Microcontroller (MCU) Families

3、MEMORIES

With nearly 40 years of experience in discrete memory semiconductors, we lead the industry with best-of-breed memory products, solutions, and technologies. We introduced our first random access memory in 1982, and have grown from that auspicious beginning to a broad range of products spanning NOR Flash, pSRAM, SRAM, nvSRAM, and F-RAM with densities ranging from 4 Kbit to 4 Gbit. With unmatched quality and long-term supply agreements, as well as a strong commitment to future investment in new technologies, we will continue to lead the industry for decades to come.

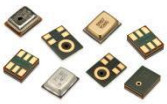
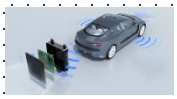
Our differentiated portfolio of volatile and non-volatile memories features: the SEMPER™ family of safe, secure, and reliable NOR Flash, the EXCELON™ family of ultra-low power, high-performance, reliable F-RAM products, and our HYPERBUS™ interface-based HYPERFLASH™ NOR Flash and HYPERRAM™ pSRAM memories.

	NOR Flash	
	F-RAM (Ferroelectric RAM)	
	nvSRAM (non-volatile SRAM)	
	PSRAM (Pseudostatic DRAM)	
	SRAM (Static RAM)	
	Flash+RAM MCP Solution	
	Radiation hardened & high reliability memories	
	Wafer & Die Memory Solutions	
	Embedded Flash IP Solution	

4、SENSORS

The XENSIV™ family represents one of the broadest and most trusted ranges of sensor types on

the market. The sensor technology portfolio includes magnetic sensors which can maximize product lifespan and efficiency with truly contactless technology; high-precision coreless current sensor technology which offers significant space and BOM savings over traditional solutions; state-of-the-art MEMS automotive microphones designed according to the latest AEC-Q103-003 quality standard; and pressure sensors which integrate sensing and signal processing into a single chip. Other XENSIV™ sensors include CO2 sensors, radar sensors, and ToF 3D image sensors.

	Magnetic sensors	
	Current sensors	
	MEMS microphones	
	Pressure sensors	
	CO_2 sensor	
	Radar sensors	
	ToF 3D image sensors	

5、POWER MANAGEMENT

Infineon OPTIREG™ PMIC products are power management integrated circuits consisting of

integrated, multi-rail supply solutions for demanding automotive systems in segments like chassis, safety, ADAS, powertrain, and drive train.

This PMIC chipset has efficient, reliable and safe voltage regulation, including pre- and post-regulator architectures, and DCDC-, linear, and tracking regulators. Besides power supply, additional monitoring and supervision functions enable reliable and easy design of the safety concept for ECUs.

	LDO(Linear Voltage Regulator (LDO)	
	DC-DC Converters	
	AC-DC Power Conversion	

6、MOTOR CONTROL ICs

- MOTIX™ drivers: Select from the most attractive and complete MOSFET motor driver portfolio for BDC and BLDC low voltage applications for body, chassis, and powertrain applications from 12 V – 48 V batteries such as our MOTIX™ multi MOSFET drivers or our motor gate drivers as well as servo and stepper motor drivers
- MOTIX™ bridge: Fully integrated unique half-bridges (NovalithIC™), full bridges, and multi half-bridges from Infineon are the most cost-effective solution for low power BDC motor drives < 300 W and provides ease-of-use power stages at minimum PCB space
- MOTIX™ SBC: Enabling a unique level of system integration including supply, transceivers and motor driver for BDC and BLDC. The MOTIX™ Motor System IC is a tailored solution for automotive body applications increasing the value for customers and MOTIX™ 6EDL7141 for industrial BLDC motor control.

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