

CIPOS™ Maxi IM828-XCC introduction



인피니언 전력반도체 솔루션
가상부스에 오신 걸 환영합니다!



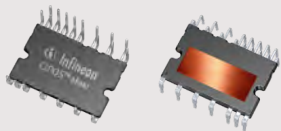
CIPOS™ Maxi 1200 V IPMs

Overall portfolio



Products

DIP 36X23D package



IM818-series IGBT IPM
IM828-series SiC IPM

Dimensions [mm]

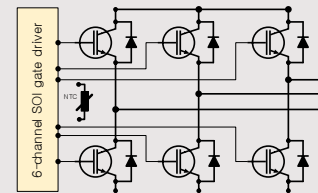
36 x 22.7 x 3.1 mm³ with 24 pins

Product line

Part No.	Voltage rating	Current rating	Ver.	Remark
IM818-SCC	1200 V	5 A	IGBT 4	In production
IM818-MCC	1200 V	10A	IGBT 4	In production
IM818-LCC	1200 V	15 A	IGBT 4	ES: available MP: Q2/2021
IM828-XCC	1200 V	$R_{DS(ON)} = 55 \text{ m}\Omega$	CoolSiC™ MOSFET	ES: available MP: Q4/2021

Topology

3-phase inverter with open emitters



Applications



Benefits

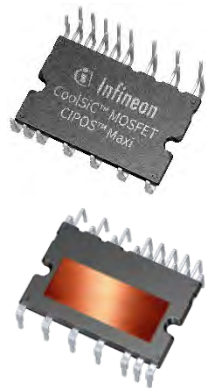
- › System cost saving
- › Faster time-to-market
- › High power density and high efficiency
- › Wide switching speed range

CIPOS™ Maxi: IM828-XCC

Description and product portfolio



Coming soon



Description

- › The CIPOS™ Maxi IM828 series offers a 3-phase inverter with 1200 V CoolSiC™ MOSFETs combined with an optimized 6-channel SOI gate driver for excellent electrical performance to increase reliability, optimize PCB size and reduce system costs.
- › The product concept is specially adapted to power applications, which need good thermal performance and electrical isolation as well as EMI save control and overload protection.
- › It is designed to operate as a high-performance inverter for demanding motor drive applications and active power factor correction.

Product portfolio

Part No.	Voltage rating	Current rating	Ver.	Remark
IM828-XCC	1200 V	$R_{DS(ON)} = 55 \text{ m}\Omega$	CoolSiC™ MOSFET	ES: available MP: Q4/2020

CIPOS™ Maxi: IM828-XCC

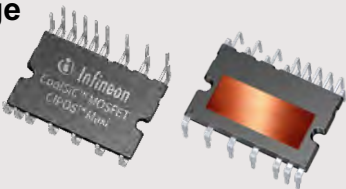
1200 V CoolSiC™ MOSFET 55 mΩ IPM overview



Coming soon

Product

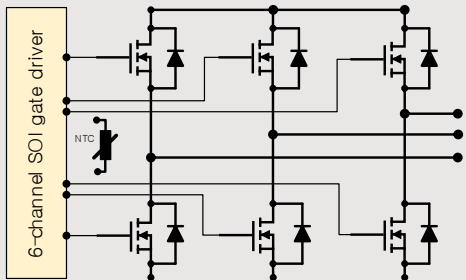
DIP 36X23D package



Dimensions [mm]	36 x 22.7 x 3.1 mm ³ with 24 pins
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Topology

3-phase inverter with open emitters



Benefits and value proposition

- › Very low losses thanks to advanced CoolSiC™ MOSFET technology
- › Reduced system costs and easy design-in
- › Fast time-to-market
- › Wide switching speed range
- › High power density, high efficiency and high output power in one small package

Typical applications



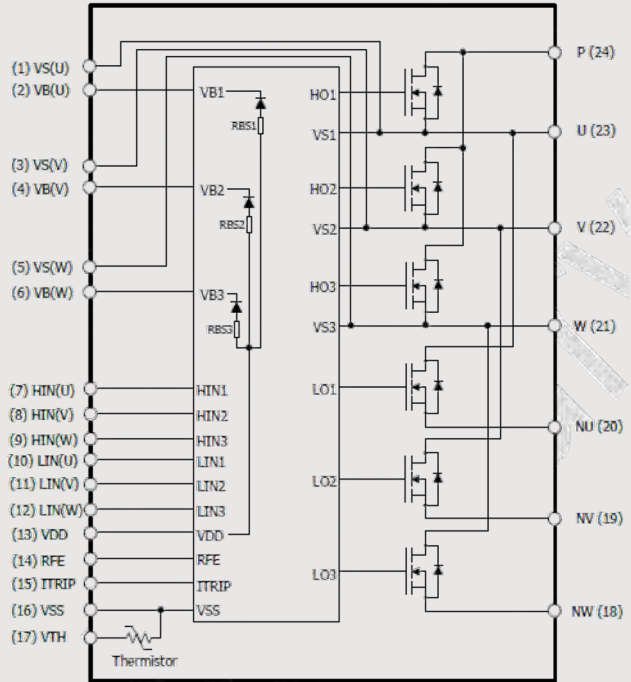
CIPOS™ Maxi: IM828-XCC

Key features



Coming soon

Block diagram



Main features

Fully isolated dual in-line molded module with DCB substrate

Integrated 6 CoolSiC™ MOSFETs and a rugged 1200 V 6-channel SOI gate driver

Integrated bootstrap diodes

Allowable negative VS potential up to -11 V for signal transmission at $V_{BS}=15$ V

Undervoltage lockout on all channels

RFE pin with multiple functions

ITRIP pin with overcurrent detection

Independent thermistor for temperature monitoring

Low-side emitter pins accessible for all phase current monitoring (open emitter)



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