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the digital world.

# CoolSiC™ hybrid modules in Easy package

Infineon's virtual show 2020



# Easy hybrid modules with CoolSiC™ Schottky diodes G5



## Key features

- › System efficiency improvements for reduced cooling requirements
- › Enabling higher frequency to increase power density
- › Reduction of IGBT turn-on losses
- › Reduced EMI
- › Switching loss independent of load current, switching speed and temperature

## Target applications



... and more

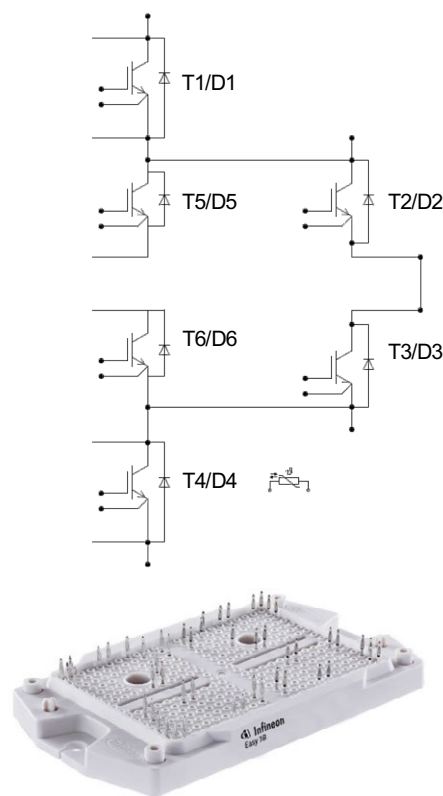
# Easy hybrid modules with CoolSiC™ Schottky diodes G5

New	Product	I <sub>c</sub>	Voltage	Topology	Technology
	FS3L40R07W2H5F_B11	40 A	650 V	3-level NPC1	TRENCHSTOP™ 5
	FS3L40R07W2H5F_B67	40 A			TRENCHSTOP™ 5
	FS3L50R07W2H3F_B11	50 A			HighSpeed 3
	F3L200R07W2S5FP_B55	200 A			TRENCHSTOP™ 5
	F3L200R07W2S5FP_B56	200 A			TRENCHSTOP™ 5
	F3L200R07W2S5F_B11	200 A			TRENCHSTOP™ 5
	DF80R07W1H5FP_B11	80 A	1200 V	Booster	TRENCHSTOP™ 5
	DF100R07W1H5FP_B53	100 A			
	DF80R12W2H3F_B11	80 A		Booster	HighSpeed 3
	DF160R12W1H3F_B11	160 A			
	DF200R12W1H3F_B11	200 A			

B11 / B53 = PressFIT pin  
 B55 / B56 = Different positions of SiC diodes  
 B67 = Small SiC diodes  
 P = Thermal Interface Material (TIM)



# Easy 3B CoolSiC™ hybrid inverter module for >200 kW 1500 V solar inverters



## BoM

T1/T4	950 V S7
T2/T3	950 V L7
T5/T6	950 V S7
T2/T3	950 V L7
T5/T6	950 V S7
D1/D2/D3/D4	950 V diode
D5/D6	950 V diode / CoolSiC™ SBD

- › ANPC topology with 4 fast switches
- › Short commutation loops
- › 950 V IGBT and diode with latest technology
- › S7 optimized for switching losses and L7 optimized for conduction losses

## Sales name

## Description

F3L400R10W3S7\_B11

With 950 V Si diode

F3L400R10W3S7F\_B11

With 1200 V CoolSiC™ Schottky diode

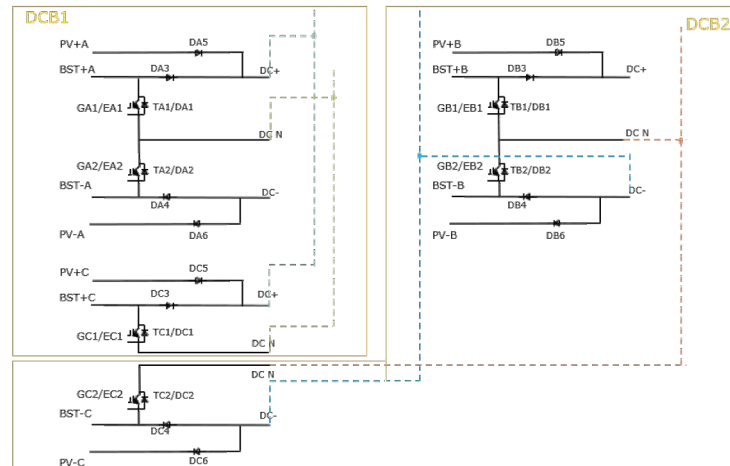
+SiC

# Easy 3B CoolSiC™ hybrid boost module for >200 kW 1500 V solar inverters

## BoM

Tx1/Tx2	950 V 100 A S7
Dx1/Dx2	1200 V 35 A diode
Dx3/Dx4	1200 V 30 A CoolSiC™ diode
Dx5/Dx6	1200 V 75 A diode

- › 3 MPPTs per module
- › 26 A input current per MPPTs (suitable for double-sided panel)
- › Much lower losses with the combination of CoolSiC™ Schottky diodes and 950 V TRENCHSTOP™ S7



Sales name	Description
FS3L200R10W3S7F_B11	3-level bipolar boost module (3 MPPTs)



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