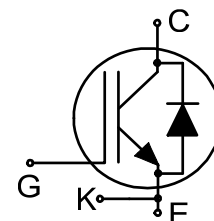


Hybrid CoolSiC™ IGBT

TRENCHSTOP™ 5 S5 IGBT co-packed with full-rated 6th generation CoolSiC™ Schottky barrier diode

Features and Benefits:

- Ultra-low switching losses due to the combination of TRENCHSTOP™ 5 and CoolSiC™ technology as well as the Kelvin emitter pin
- Very low on-state losses
- Benchmark efficiency in hard switching topologies
- Plug-and-play replacement of pure silicon devices
- Simplified PCB design due to the optimized pin-out of the four-pin package
- Improved wave soldering quality due to the increased clearance of the Kelvin emitter and gate pins
- Maximum junction temperature 175°C
- Qualified according to JEDEC for target applications
- Pb-free lead plating; RoHS compliant
- Complete product spectrum and PSpice models: <http://www.infineon.com/igbt/>



Potential Applications:

- Industrial Power Supplies
 - Industrial SMPS
 - Industrial UPS
- Energy Generation
 - Solar String Inverter
- Energy Distribution
 - Energy Storage
- Infrastructure – Charge
 - Charger

Product Validation:

Qualified for applications listed above based on the test conditions in the relevant tests of JEDEC20/22

Package pin definition:

- Pin C & backside - collector
- Pin E - emitter
- Pin K - Kelvin emitter
- Pin G - gate



Key Performance and Package Parameters

Type	V _{CE}	I _C	V _{CEsat} , T _{vj} =25°C	T _{vjmax}	Marking	Package
IKZA50N65SS5	650V	50A	1.35V	175°C	K50ESS5	PG-TO247-4-3

Table of Contents

Description	1
Table of Contents	2
Maximum Ratings	3
Thermal Resistance	3
Electrical Characteristics	4
Electrical Characteristics Diagrams	6
Package Drawing	12
Testing Conditions	13
Revision History	14
Disclaimer	15