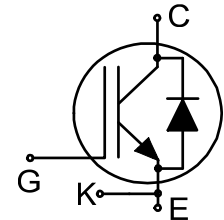


## Hybrid CoolSiC™ IGBT

### TRENCHSTOP™ 5 H5 IGBT co-packed with half-rated 6<sup>th</sup> 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
- 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 <sub>CE</sub>	I <sub>C</sub>	V <sub>CEsat</sub> , T <sub>vj</sub> =25°C	T <sub>vjmax</sub>	Marking	Package
IKZA50N65RH5	650V	50A	1.65V	175°C	K50ERH5	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