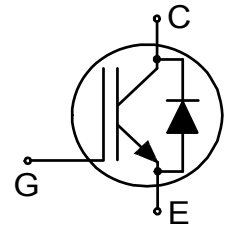


Hybrid CoolSiC™ IGBT

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
- Very low on-state losses
- Benchmark efficiency in hard switching topologies
- Plug-and-play replacement of pure silicon devices
- 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 1 - gate
- Pin 2 & backside - collector
- Pin 3 - emitter

**Key Performance and Package Parameters**

Type	V_{CE}	I_C	$V_{CEsat}, T_{vj}=25^{\circ}C$	T_{vjmax}	Marking	Package
IKW50N65SS5	650V	50A	1.35V	175°C	K50ESS5	PG-TO247-3

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