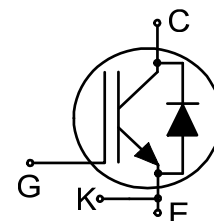


## TRENCHSTOP™ 5 soft switching IGBT

## TRENCHSTOP™ 5 high speed soft switching IGBT copacked with full current rated RAPID 1 fast and soft antiparallel diode

### Features and Benefits:

- High speed S5 technology offering
- High speed smooth switching device for hard & soft switching
- Very Low  $V_{CEsat}$ , 1.42V at nominal current
- Plug and play replacement of previous generation IGBTs
- 650V breakdown voltage
- Low gate charge  $Q_G$
- IGBT copacked with full rated RAPID 1 fast antiparallel diode
- 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/>



### Applications:

- Industrial UPS
- Industrial SMPS
- Energy Storage
- Charger
- Welding

### 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

Please note: The emitter and Kelvin emitter pins are not exchangeable. Their exchange might lead to malfunction.



### Key Performance and Package Parameters

| Type        | $V_{CE}$ | $I_C$ | $V_{CEsat}$ , $T_{vj}=25^\circ\text{C}$ | $T_{vjmax}$ | Marking | Package    |
|-------------|----------|-------|---|-------------|---------|------------|
| IKZ50N65ES5 | 650V     | 50A   | 1.35V                                   | 175°C       | K50EES5 | PG-TO247-4 |

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