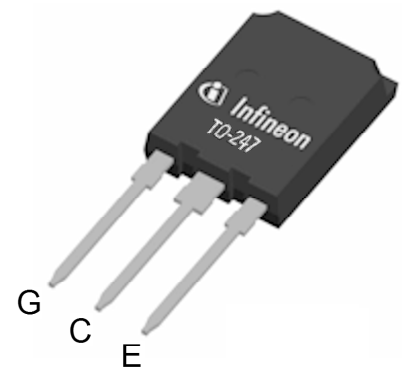
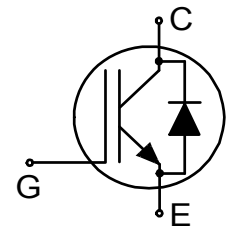


High speed switching series third generation IGBT

Low switching losses IGBT in Highspeed3 technology copacked with soft, fast recovery full current rated anti-parallel Emitter Controlled diode

Features:

- High speed H3 technology offers:
- High efficiency in hard switching and resonant topologies
 - 10µsec short circuit withstand time at $T_{vj}=175^{\circ}\text{C}$
 - Easy paralleling capability due to positive temperature coefficient in V_{CEsat}
 - Low EMI
 - Low Gate Charge Q_G
 - Very soft, fast recovery full current anti-parallel diode
 - Maximum junction temperature $T_{vjmax}=175^{\circ}\text{C}$
 - Pb-free lead plating; RoHS compliant
 - Complete product spectrum and PSpice Models:
<http://www.infineon.com/igbt/>



Applications:

- Industrial UPS
- Charger
- Energy Storage
- Three-level Solar String Inverter
- Welding

Product Validation:

Qualified for industrial applications according to the relevant tests of JEDEC47/20/22



Key Performance and Package Parameters

Type	V_{CE}	I_C	$V_{CEsat}, T_{vj}=25^{\circ}\text{C}$	T_{vjmax}	Marking	Package
IKQ50N120CH3	1200V	50A	2V	175°C	K50MCH3	PG-TO247-3-46

Table of Contents

Description	1
Table of Contents	2
Maximum Ratings	3
Thermal Resistance	3
Electrical Characteristics	4
Electrical Characteristics Diagrams	6
Package Drawing	13
Testing Conditions	14
Revision History	15
Disclaimer	16