

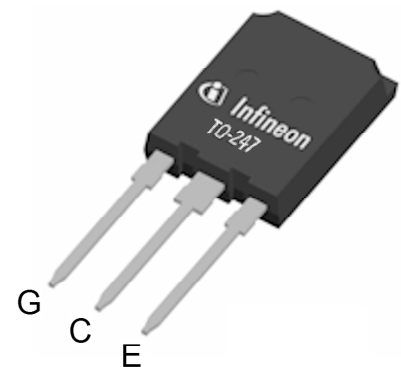
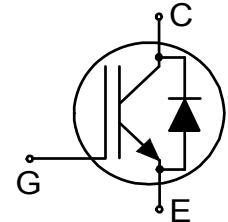
TRENCHSTOP™ 2 low $V_{ce(sat)}$ second generation IGBT

Low $V_{ce(sat)}$ IGBT in TRENCHSTOP™ 2 technology copacked with soft, fast recovery full current rated anti-parallel Emitter Controlled Diode

Features:

TRENCHSTOP™ 2 technology offers:

- Very low $V_{CE(sat)}$, 1.75V at nominal current
- 10 μ sec short circuit withstand time at $T_{vj}=175^{\circ}\text{C}$
- Easy paralleling capability due to positive temperature coefficient in $V_{CE(sat)}$
- Low EMI
- Very soft, fast recovery full current anti-parallel diode
- Maximum junction temperature 175 $^{\circ}\text{C}$
- Pb-free lead plating; RoHS compliant
- Complete product spectrum and PSpice Models:
<http://www.infineon.com/igbt>



Applications:

- GPD (General Purpose Drives)
- Servo Drives
- Commercial Vehicles
- Agricultural Vehicles
- 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
IKQ40N120CT2	1200V	40A	1.75V	175 $^{\circ}\text{C}$	K40MCT2	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