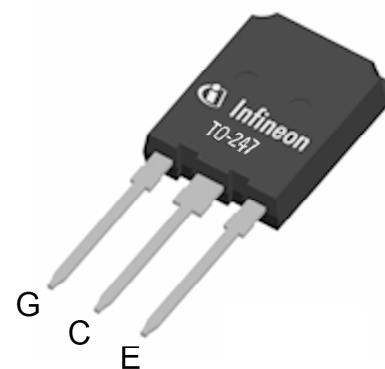
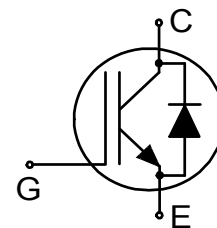


TRENCHSTOP™ Series

Low Loss DuoPack: IGBT in TRENCHSTOP™ and Fieldstop technology with soft, fast recovery antiparallel Emitter Controlled diode

Features:

- Automotive AEC-Q101 qualified
- Designed for DC/AC converters for Automotive Application
- Very low $V_{CE(sat)}$ 1.5V (typ.)
- Maximum junction temperature 175°C
- Dynamically stress tested
- Short circuit withstand time 5μs
- 100% short circuit tested
- 100% of the parts are dynamically tested
- Positive temperature coefficient in $V_{CE(sat)}$
- Low EMI
- Low gate charge Q_G
- Green package
- Very soft, fast recovery antiparallel Emitter Controlled HE diode
- TRENCHSTOP™ and Fieldstop technology for 600V applications offers:
 - very tight parameter distribution
 - high ruggedness, temperature stable behavior
 - very high switching speed



Applications:

- Main inverter
- Climate compressor
- PTC heater
- Motor drives



Key Performance and Package Parameters

Type	V_{CE}	I_C	$V_{CEsat}, T_{vj}=25^{\circ}C$	T_{vjmax}	Marking	Package
AIKQ100N60CT	600V	100A	1.5V	175°C	AK100DCT	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