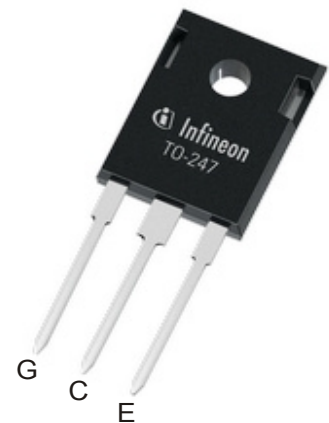
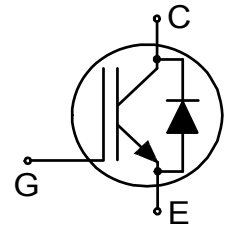


TRENCHSTOP™ Series

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 5 μ s
- 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	$V_{CE(sat)}$, $T_{vj}=25^\circ\text{C}$	T_{vjmax}	Marking	Package
AIKW50N60CT	600V	50A	1.5V	175°C	AK50DCT	PG-TO247-3



TRENCHSTOP™ Series

Table of Contents

Description 1

Table of Contents 2

Maximum Ratings 3

Thermal Resistance 3

Electrical Characteristics 4

Electrical Characteristics Diagrams 6

Package Drawing13

Testing Conditions14

Revision History15

Disclaimer16