Product Overview

AFGHL50T65SQDC: Hybrid IGBT, 650V, 50A Fieldstop 4 trench IGBT with SiC-SBD

For complete documentation, see the data sheet.

Using novel field stop IGBT and SiC SBD technology, ON semiconductor's new series of hybrid IGBTs offer the optimum performance for hard switching application. The device co-packages a silicon-based IGBT with a SiC Schottky barrier diode, resulting in an excellent tradeoff between the lower performance of silicon-based solutions and the higher cost of entirely SiC-based solutions.

Features

- Automotive Qualified
- Very low switching and conduction losses
- Maximum Junction Temperature, Tj=175°C
- Positive temperature co-efficient
- 100% of the parts are dynamically tested
- Copacked with SiC schottky barrier diode
- Tight parameter distribution

Applications

- Automotive
- Industrial Inverter
- DC-DC Converter
- PFC, Totem Pole Bridgeless
- Hard Switching

End Products

- xEV On & Off board charger
- UPS
- Solar Inverter
- HVAC

Part Electrical Specifications

Product	Compliance	Status	$V_{(BR)CES}$ Typ (V)	I_C Max (A)	$V_{CE(sat)}$ Typ (V)	V_F Typ (V)	E_{off} Typ (mJ)	E_{on} Typ (mJ)	T_{rr} Typ (ns)	I_{rr} Typ (A)	Gate Charge Typ (nC)	Short Circuit Withstand (µs)	E_{AS} Typ (mJ)	P_D Max (W)	Co-Packaged Diode	Package Type
AFGHL50T65SQDC	AEC Qualified PPAP Capable Pb-free	Active	650V	50A	1.6V	1.45V					94				Yes	TO-247-3LD

For more information please contact your local sales support at www.onsemi.com.

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