

Product Overview

NFVA33065L32: Intelligent Power Module (IPM), AEC-Q & AQG324, Automotive, Inverter, 650V,30A

For complete documentation, see the data sheet.

NFVA33065L32 is an advanced Automotive Intelligent Power Module (IPM), providing a fully-featured, high-performance inverter output stage for hybrid and electric vehicles. These modules integrate optimized gate drive of the built-in IGBTs to minimize EMI and losses, while also providing multiple on-module protection features including under-voltage lockouts, over-current shutdown, thermal monitoring of drive IC, and fault reporting. The built-in, high-speed HVIC requires only a single supply voltage and translates the incoming logic-level gate inputs to the high-voltage, high-current drive signals required to properly drive the module's internal IGBTs. Separate negative IGBT terminals are available for each phase to support the widest variety of control algorithms.

Features

- 650 V/30 A 3-Phase IGBT Inverter with Integral Gate Drivers and Protections
 - WW 1st Automotive qualified grade HV module (AEC-Q100, 101 & AQG(LV)324)
 - 175°C guaranteed Short-Circuit Rated FS Trench IGBTs with stable EMI performance
 - Outstanding Thermal Resistance using AlN DBC Substrate
 - Automotive SPM in 27 pin DIP package
 - Separated Open-Emitter Pins from Low-Side IGBTs for Three-Phase Current Sensing
 - Single-Grounded Power Supply
 - LVIC Temperature-Sensing Built-In for Temperature Monitoring
 - Isolation Rating: 2500 Vrms/1 min.
 - Pb-Free and RoHS compliant
- For more features, see the data sheet

Benefits

- High integration in compact form factor
Short design cycle & assembly process
- WW 1st automotive qualified IPM
- Outstanding ruggedness
- Extra long lifetime

Applications

- Automotive high voltage auxiliary motors

End Products

- Climate Control - e Compressor
- HV Oil/Water Pumps
- HV Super/Turbochargers
- Variety HV Fan

Part Electrical Specifications

Product	Compliance	Status	Family	Rated Voltage Min (V)	$I_o @ 25^\circ\text{C}$ Min (A)	$V_{CE(sat)} @ 25^\circ\text{C}$ Typ (V)	$R_{DS(on)}$ (Ω)	Emitter Configuration	Shutdown Pin	Package Type
NFVA33065L32	AEC Qualified PPAP Capable Pb-free Halide free	NEW	ASPM27-V2	650	30	1.6		3 emitter pins	No	DIP-027

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

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