



Product Overview

STK984-090A-E: 3 phase Brushless DC Motor Driver

For complete documentation, see the data sheet

Product Description

The STK984-090A-E is a 3-phase BLDC motor driver Intelligent Power Module consisted of pre-driver and power MOSFET. It has shunt resistor and thermistor built in. So, various protective functions against over-temperature, over-current, over-voltage and low voltage are incorporated. You can design BLDC motor drive circuit easily and reduce the PCB area.

Features	Benefits
<ul style="list-style-type: none"> Built-in pre-driver IC Various protections (Overcurrent Protection, Over Temperature Protection, Low Voltage Protection, Over Voltage Protection) are incorporated On board terminals that output fault signal on board a reset terminal Built-in shunt resistor Dual-Stage Charge-pump for low voltage operation (Cranking) AEC-Q100 qualified and PPAP capable. 	<ul style="list-style-type: none"> FET can be driven by microcontroller output (logic system) Protected by various abnormal states Easy to confirm which protection function acted (Over current or Over temperature) The current detection is possible External boot strap diodes and condensers are unnecessary

Applications	End Products
<ul style="list-style-type: none"> Automotive Industrial 	<ul style="list-style-type: none"> Radiator Fan Blower Fan Water Pump Electrical Slide Door Industrial Machines

Part Electrical Specifications

Product	Compliance	Status	Type	V _M Min (V)	V _M Max (V)	V _{CC} Min (V)	V _{CC} Max (V)	I _O Max (A)	I _O Peak Max (A)	Step Resolution	Control Type	Feedback Method	Current Sense	Regulator Output	Fault Detection	Flyback Protection	R _{DS(on)} Typ (Ω)	Package Type
STK984-090A-E	AEC Qualified PPAP Capable Pb-free	Active	Brushless DC	-0.3	40	-0.3	6	20	180		Parallel	None	Fully Integrated	No	Over-Current Thermal UV LO			SIP-23

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