

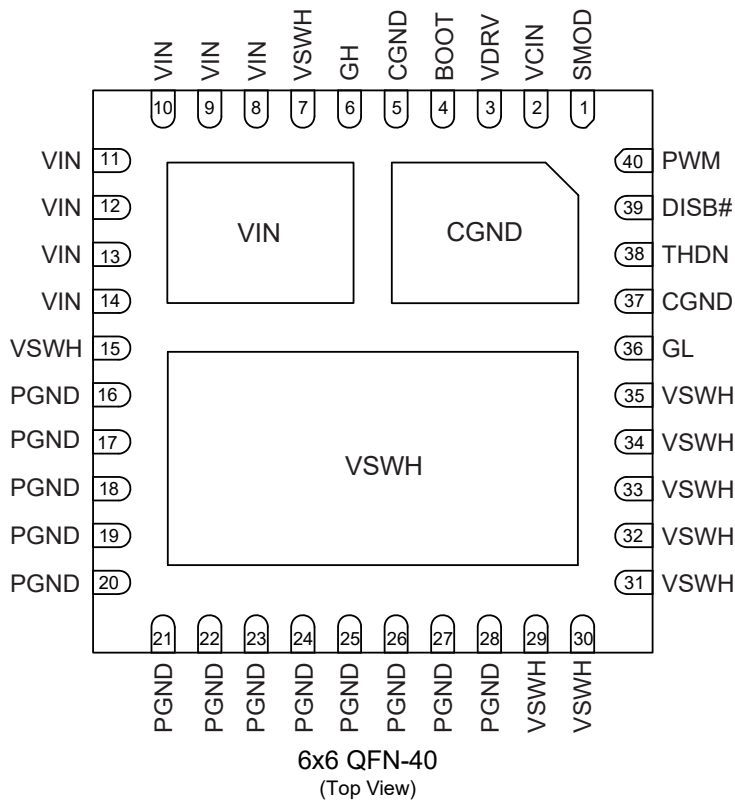
Ordering Information

Part Number	Ambient Temperature Range	Package	Environmental
AOZ5166QI-01	-40°C to +85°C	6x6 QFN-40L	Green Product



AOS Green Products use reduced levels of Halogens, and are also RoHS compliant. Please visit www.aosmd.com/media/AOSGreenPolicy.pdf for additional information.

Pin Configuration



Pin Description

Pin Number	Pin Name	Pin Function
1	SMOD	Pull Low to Enable Discontinuous Mode of Operation (DCM), Diode Emulation or Skip Mode
2	VCIN	Control Supply Voltage Input (5V) for all MOSFET Driver Control functions.(NOT a LS MOSFET Gate Driver Supply Rail - see VDRV pin). Place a 1 μ F capacitor to CGND (Pin 5).
3	VDRV	Power Supply Voltage Rail (5V) for the BOOT capacitor charging diode and LS MOSFET Driver. Nominal 5V.
4	BOOT	HS MOSFET Gate Driver Supply Rail (5V Nominal). Mount a 100nF ceramic capacitor across this pin and the VSWH pin at Pin 7.
5, 37	CGND	Control or analog ground for return of control signals and bypass capacitors. Attached to exposed pad in the driver section Pins 5 & 37.
6	GH	Gate of the HS MOSFET. Used for module testing during production. No user connections.
7	VSWH	HS MOSFET Gate Driver Return Rail. A 100nF ceramic capacitor is mounted to this pin and the BOOT pin.
8 ~ 14	VIN	Power input to the switching MOSFETs. Connected to the HS MOSFET drain pad.
15	VSWH	Switching or the phase node pin. Not for power connections.
16 ~ 28	PGND	Power Ground Return Rail for the LS MOSFET Driver. A 1 μ F ceramic capacitor is connected between this pin and VDRV (Pin 3).
29 ~ 35	VSWH	High Current Switching terminal of both the HS and LS MOSFETs. Pins to the internal circuitry for Zero Cross Detect, Boost UVLO and Anti-Overlap Control.
36	GL	LS MOSFET Gate. Used for module testing during production. No user connections.
38	THDN	Active Low. Thermal Monitor. Open drain outputs a Flag signal to the controller when a thermal fault has occurred.
39	DISB#	Enable pin for all MOSFET Driver functionality. When pulled low, the GH and GL outputs will be pulled low leaving the VSWH node floating.
40	PWM	PWM input signal from the controller IC. This input can accept zero to 5V logic and Tri-state logic levels.

