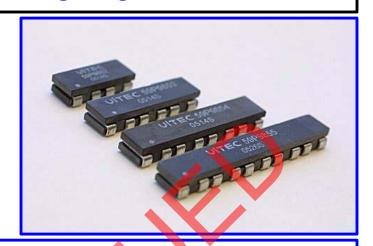
Designed for Advanced Voltage Regulator Modules

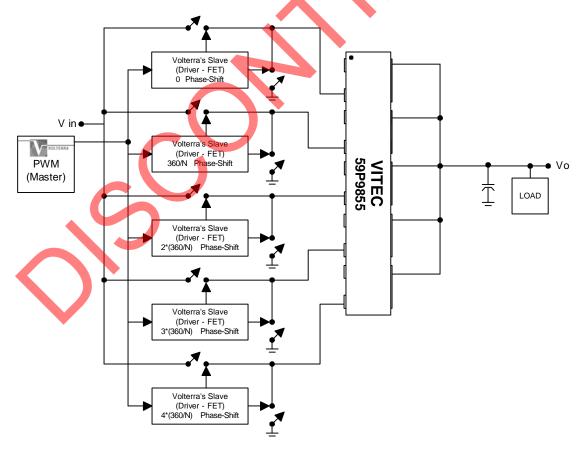
FEATURES

- Designed for use with Volterra Semiconductor's 4th generation synchronous buck voltage regulator chipsets.
- Lowest output ripple current with less output capacitors.
- Up to 2MHz operating frequency.
- Extended operating temperature range: -40°C to 125°C.
- Robust SMD package capable of handling the most aggressive SMT assembly process.
- US Patent Number 6,362,986.
- RoHS Compliant Version Available.
- Faster transient response and higher efficiency.



APPLICATIONS

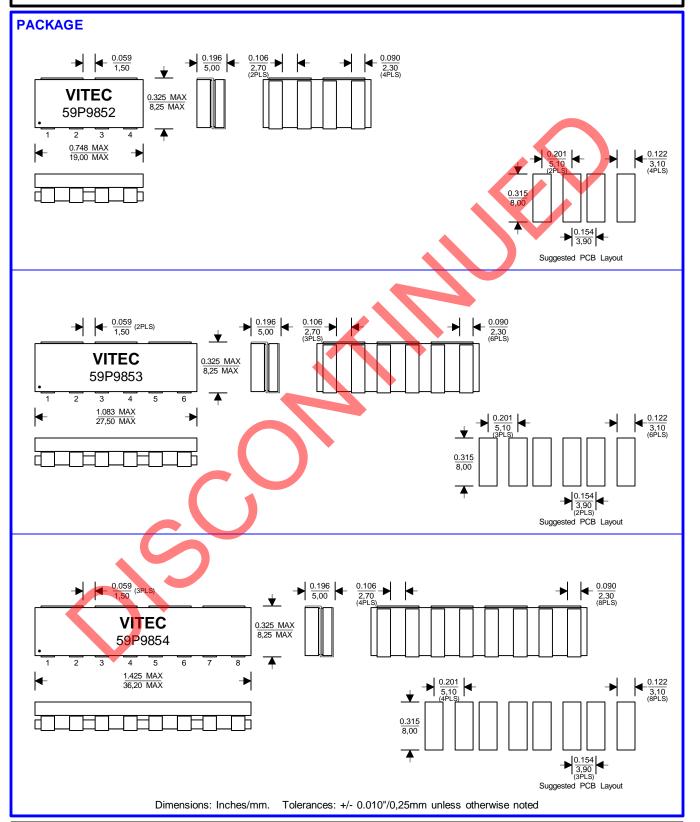
- VRD and VRM 10.x and 11.x based designs
- Multi-Phase Switching regulator designs using Volterra VT1105M®, VT1115M® chipsets only
- Server, Desktop, Graphics cards, Notebook computers, DDR, telecom switches and routers



Typical Multi-Phase Application Circuit for a Synchronous Buck Converter

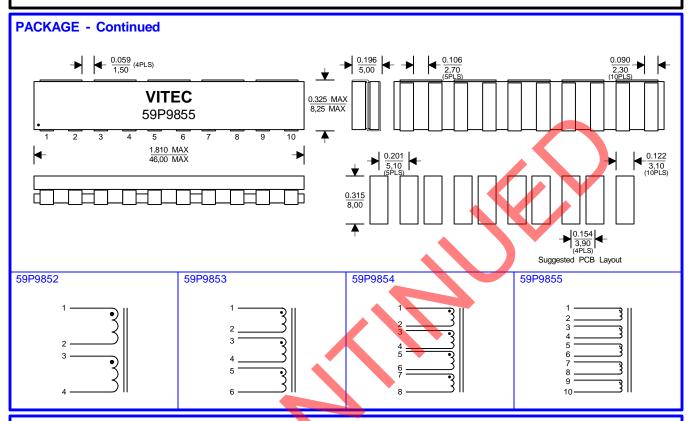


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ELECTRICAL CHARACTERISTICS @ 25°C (unless otherwise noted)															
Part Number		Phase Inductance (1)(2)	Current	Ir	Inductance @ 0 Adc (3)				Inductance @ 5 Adc ⁽³⁾					DCR	
			(4)(2)	L (1-2)	L (3-4)	L (5-6)	L (7-8)	L (9-10)	L (1-2)	L (3-4)	L (5-6)	L (7-8)	L (9-10)		
Classic	RoHS	nH	ADC	nH	nH	nΗ	nΗ	nΗ	nΗ	nΗ	nΗ	nΗ	nΗ	mOhm	mOhm
		± 20%	TYP	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	TYP	MAX
59P9852	59PR9852	50	40	330	330	-	-	-	260	260	-	-	-	0.53	0.59
59P9853	59PR9853	50	40	360	440	360	-	-	290	400	290	-	-	0.53	0.59
59P9854	59PR9854	50	40	360	440	440	360	-	290	400	400	290	-	0.53	0.59
59P9855	59PR9855	50	40	360	440	440	440	360	290	400	400	400	290	0.53	0.59

Add an "R" to the part number after "P" for the RoHS compliant version (i.e. 59PR9852 is the RoHS compliant version of 59P9852).

Notes:

- (1) Controlled by design based on Volterra's testing.
- (2) Additional information on the in-circuit operation can be obtained by contacting Volterra.
- (3) Open circuit inductance of each inductor, measured @100KHz and 1.0Vrms.
- (4) Rated current per phase is based on practical thermal limits determined by Volterra.

ENVIRONMENTAL & RELIABILITY DATA

Storage Temperature: -40C to +125C

Operating Temperature: -40C to +125C

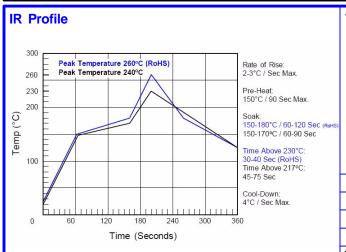
Resistance to Solder Reflow: 3 pages thru, +235C fe

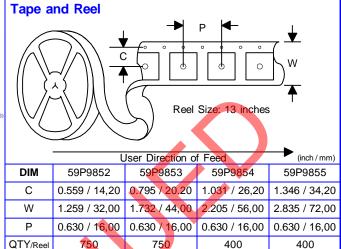
Resistance to Solder Reflow: 3 passes thru. +235C for 30 seconds minimum

Marking permanency: Tested per JESD22-B107-A Solderability: Tested per MIL-STD-750D Life Test: Tested per MIL-STD-202F, Method 108A Thermal Cycle: Tested per JESD22-B104-B, Test Condition G



Designed for Advanced Voltage Regulator Modules





ABOUT US

Vitec Electronics Corporation, founded in 1986, is a worldwide leader in the design, manufacture and sale of magnetic solutions. Vitec's market focus includes the power, power conditioning, telecom, networking, communications and computing. Vitec has also established strong alliances with chip manufacturers whereby magnetic solutions are designed in conjunction with unique silicon requirements and are offered as reference designs by the chip companies.

With its Corporate Headquarters and Research & Development center located in Carlsbad, California, and its state of the art manufacturing facility and material sourcing in China, Vitec is uniquely positioned to supply the latest technology at the lowest cost. Vitec offers both standard and custom product design capabilities with all of its facilities being ISO certified.

QUALITY POLICY

Vitec will provide products and services that meet or exceed our Customer's requirements, conform to company policies and standards, and exhibit continuously improving levels of Quality.

COMMITMENT

VITEC Electronics empowers each of its employees by providing a business environment that encourages a commitment to excellence, a sense of ownership and personal accountability to all Vitec Customers.

Competitive Pricing, Quality Products, and On Time Deliveries are expected from today's World Class Magnetics Suppliers. The high standards of today's customer are strengthening the dedication and commitment of VITEC Electronics to provide Total Customer Service.

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