

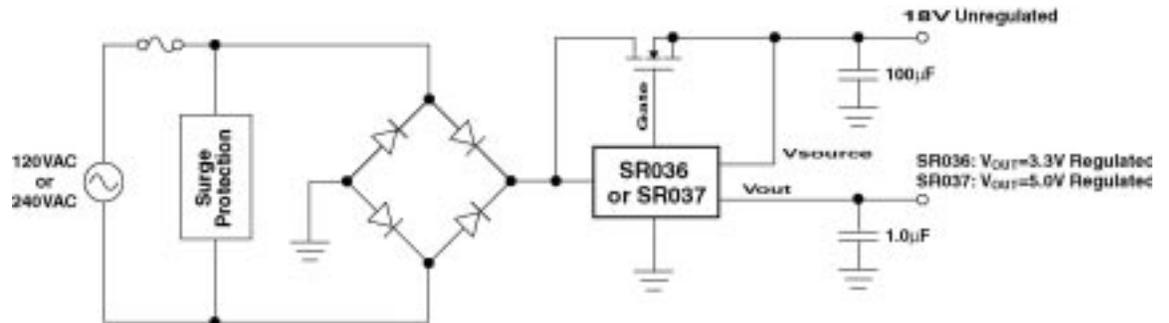
Product Summary Sheet

SR03 Series

Inductorless, Dual Output Off-Line Regulators

Applications

- 5.0V or 3.3V power supplies
- SMPS house keeping power supplies
- White goods
- Small Appliances
- Small off-line low voltage power supplies
- Lighting controls



Typical Applications Circuit

OVERVIEW:

The Supertex SR03 is a high input voltage, inductorless switching regulators featuring dual, non-isolated outputs. It does not require any transformers, inductors or high voltage capacitors. The input voltage, H_{Vin} , is designed to operate from an unfiltered full wave rectified 120V AC or 240V AC line. It is designed to control an external N-channel MOSFET. When H_{Vin} is between $V_{gs(th)}$ to 40V, where $V_{gs(th)}$ is the threshold voltage of the external MOSFET, the external N-channel MOSFET is turned on allowing it to charge an external capacitor connected to V_{source} . An unregulated DC voltage will develop on V_{source} . Once H_{Vin} is above 45V, the N-channel MOSFET is turned off. The maximum gate voltage is 24V. The unregulated voltage is the gate voltage minus the FETs gate-source voltage. The SR03 series provide different regulated output voltages of 3.3V and 5.0V.

Features:

Accepts peak input voltages up to 700V

Dual outputs, 1 regulated, 1 unregulated

Switch-mode operation

No high voltage capacitors required

No transformers or inductors required

Benefits:

Universal (120VAC/240VAC). Tolerates line transients.

No need for secondary regulation

Efficient: no heat sink.

Saves money and reduces circuit size

No bulky and expensive magnetics

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Inductorless, Dual Output Off-Line Regulators

Electrical Specifications

Device	HV _{IN Max}	V _{Gate}	V _{Out Regulated}	V _{Out Unregulated}
SR036	700V	24V	3.3V	~18V
SR037	700V	24V	5.0V	~18V

Availability

Part Number	Package	Datasheet	Samples	Demo Board	Lead Time
SR036MG	MSOP-8	Now	Now		4-5 wks ARO
SR036SG	SO-8 w/Heat slug	Now	Now	SR036DB1 (2-3 wks)	4-5 wks ARO
SR037MG	MSOP-8	Now	Now		4-5 wks ARO
SR037SG	SO-8 w/Heat slug	Now	Now	SR037DB1 (2-3 wks)	4-5 wks ARO

Price List / Ordering Information

Part Number	Package Options
SR036MG, SR037MG	MSOP-8
SR036SG, SR037SG	SO-8 w/Heat slug

Product Contact

If you have any questions regarding the SR03 Series or samples, contact Supertex Applications at:

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Supertex Sales:

Contact your local Supertex Sales Representative