

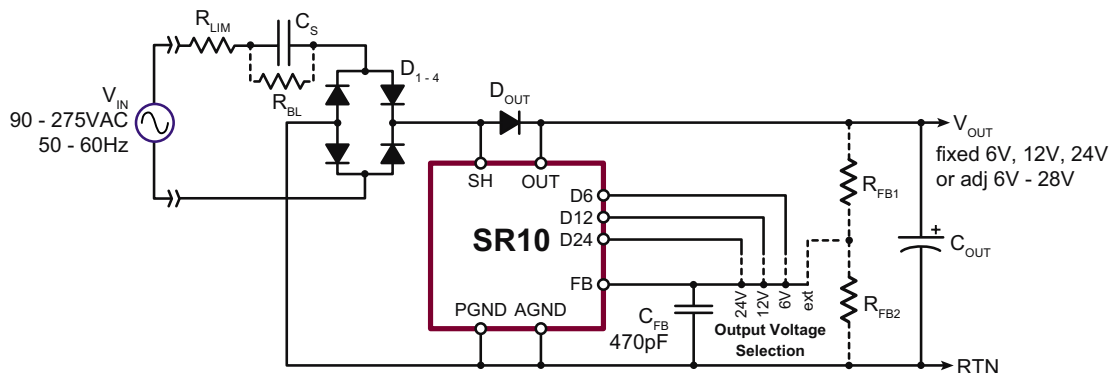
Product Summary Sheet

Applications:

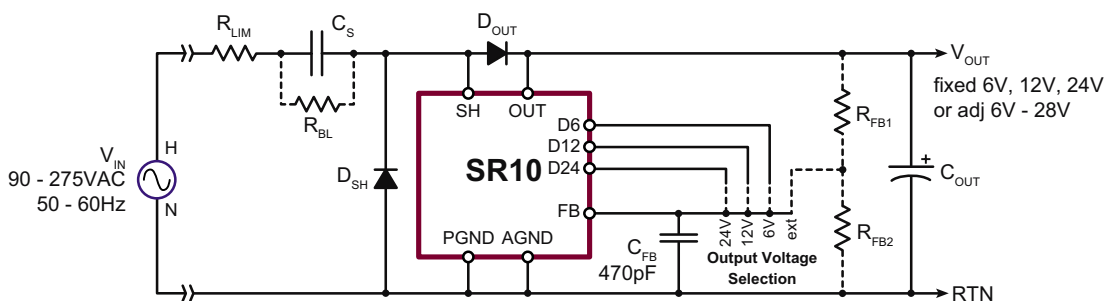
- ▶ Household appliances
- ▶ White goods
- ▶ Lighting controls
- ▶ Utility meters

SR10 Capacitor-Coupled, Switched Shunt, (CCSS) Regulator

Full-wave Rectification



Half-wave Rectification



Typical Application Circuits

Product Overview:

The Supertex SR10 is a non-isolated, capacitor-coupled, switched shunt regulator designed to operate directly from the AC line. Output voltage can be either fixed at 6.0V, 12V, or 24V using an internal feedback divider or be adjusted over a 6.0V to 28V range using an external feedback divider. Output current capability is scalable to 50mA, by selection of the series coupling capacitor (C_S) on the AC line. Standby power can be under 20mW, and efficiencies of 75% are possible depending upon configuration and degree of transient protection.

All components except for C_S are low voltage, easing PCB layout and alleviating high voltage creepage concerns.

Inherent short circuit protection is afforded by the reactance of the C_S series capacitor, which limits current even with a dead short on the output. Overcurrent protection (OCP) shuts off the shunt during a line transient.

Refer to application note AN-H65 for further information.

Features:	Benefits:
Up to 75% efficiency	No heat sink required; minimal energy consumption
No high voltage electrolytic capacitors required	Reduces circuit cost
Up to 50mA output current	Suitable for a large number of applications
No transformers or inductors required	No bulky and expensive magnetics



8-Lead SOIC (LG)



072810

Supertex inc.

SR10 Capacitor-Coupled Switched Shunt (CCSS) Regulator

Ordering Information / Availability

<u>Part Number</u>	<u>Package Option</u>	<u>Samples</u>	<u>Lead Time</u>
SR10LG-G	8-Lead SOIC (Green)	4-5 Weeks	4-6 Weeks

-G indicates the part is RoHS compliant (Green).



Product Contact

For any questions regarding the SR10, please contact your local area Supertex sales office, or contact the main office in the US at:

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