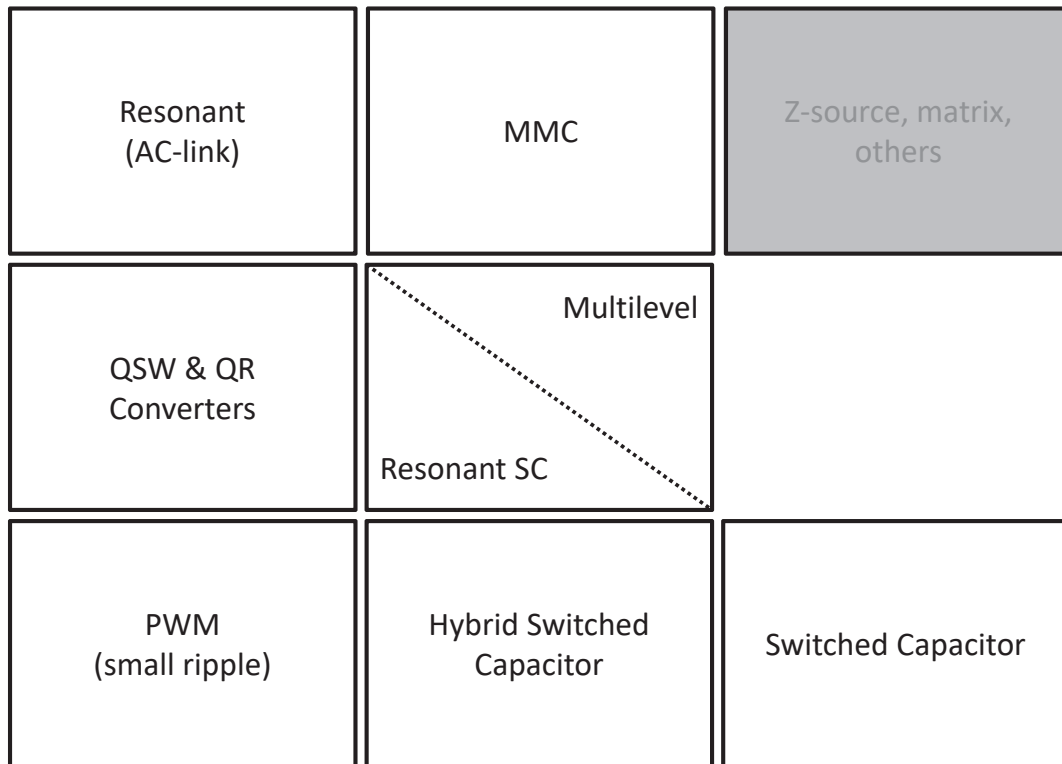
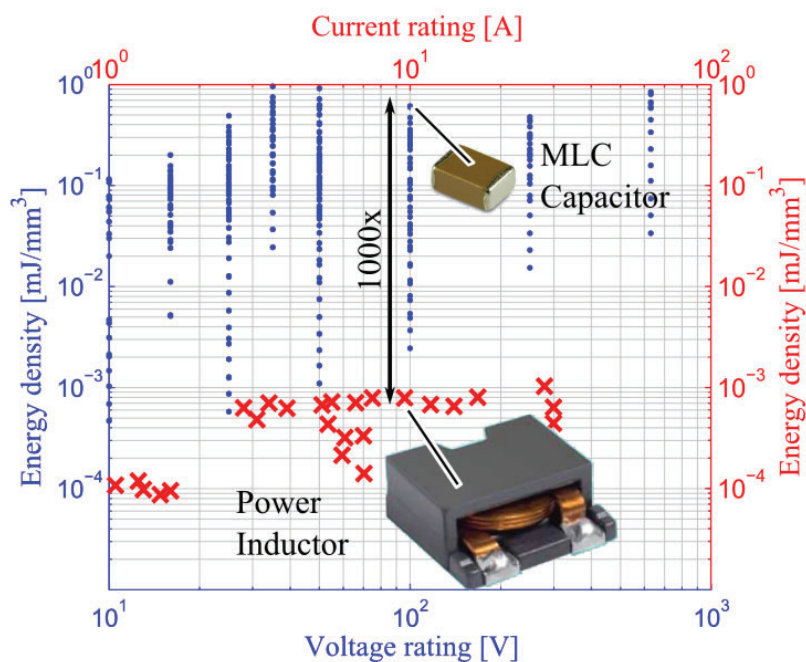


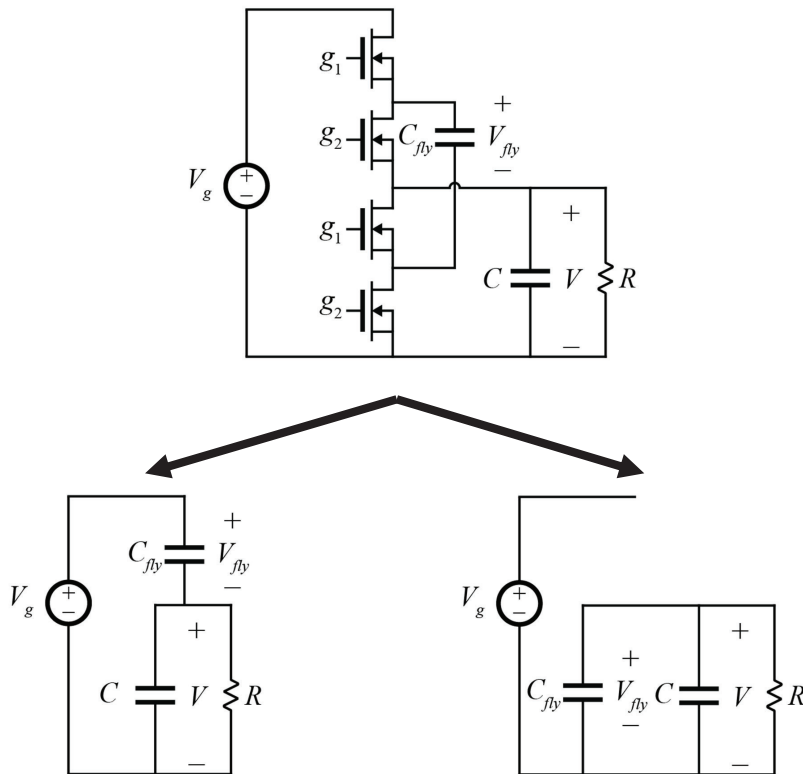
Converter Topologies



Switched Capacitor Converters



A 2:1 SC Converter



SC Converters

- Fixed conversion ratio
 - No regulation (except linear)
- Not lossless, even with ideal elements
- Can be very small, fully integrated
- **Resonant** versions can reduce loss
- **Hybrid** versions can allow regulation

Capacitor Charging: Voltage Source



Capacitor Charging: Current Source



Capacitor Charging: Resonant

