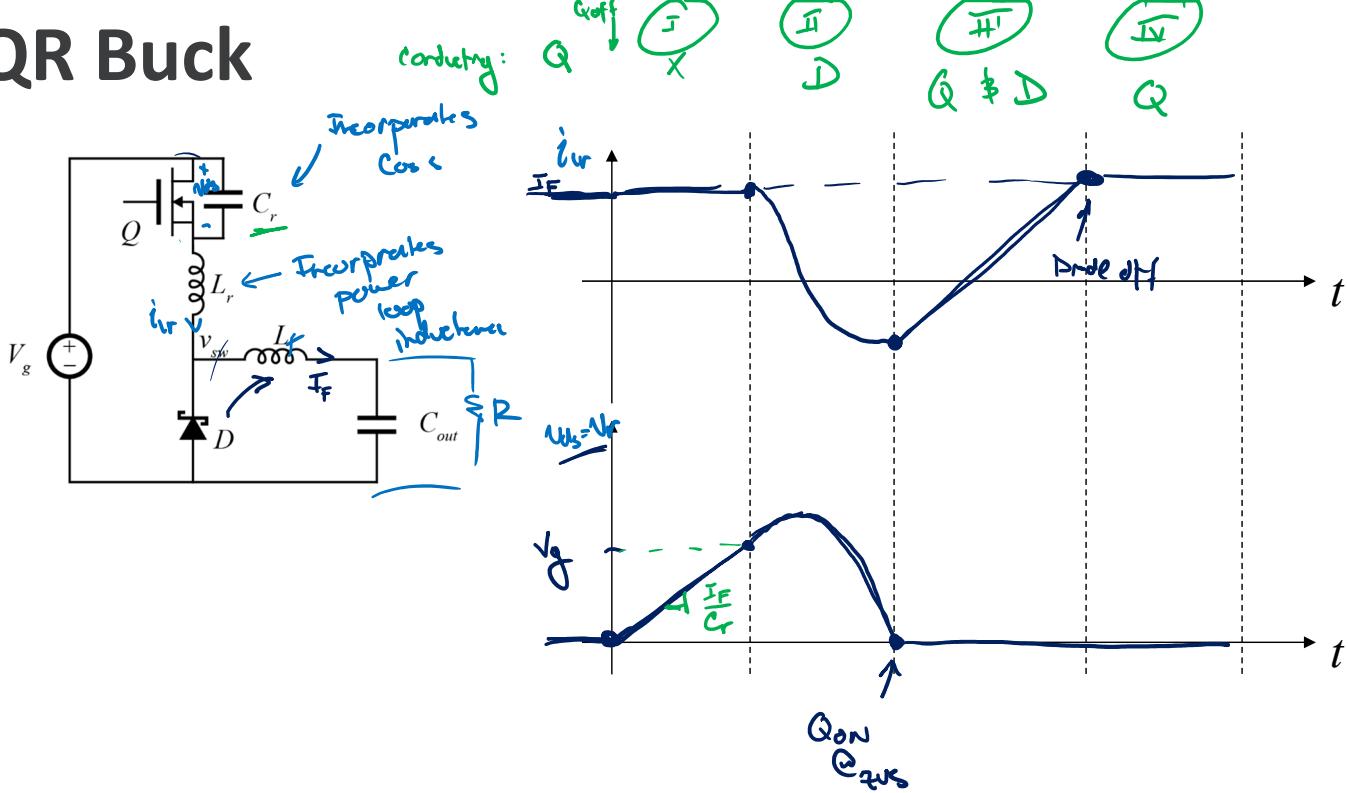
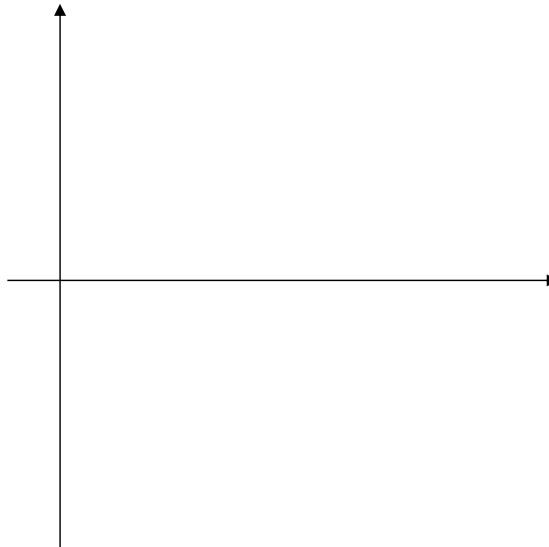


ZVS-QR Buck



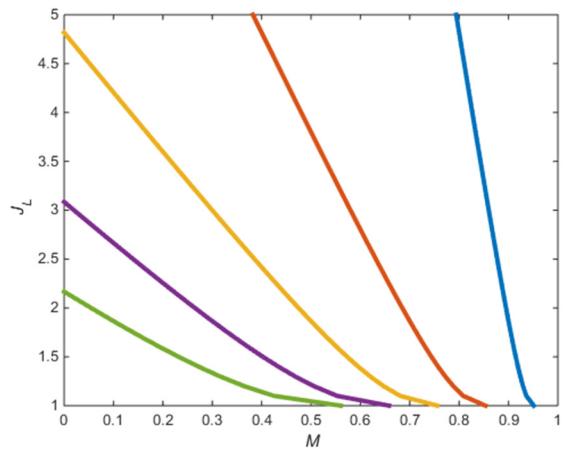
ZVS-QR State Plane



Averaging

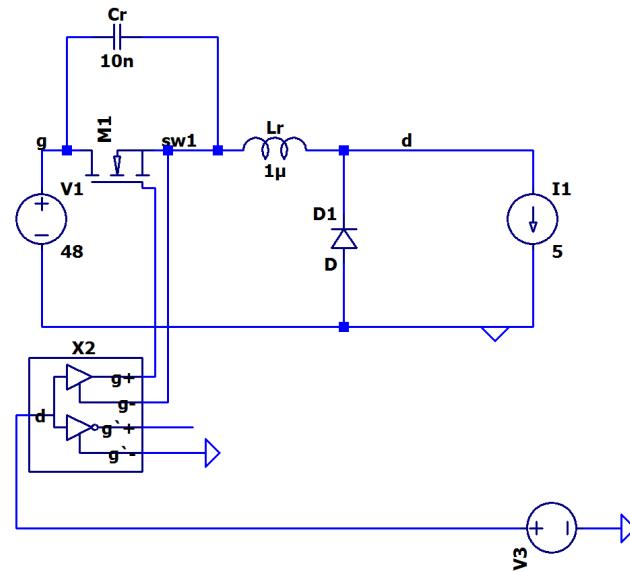


Complete Solution

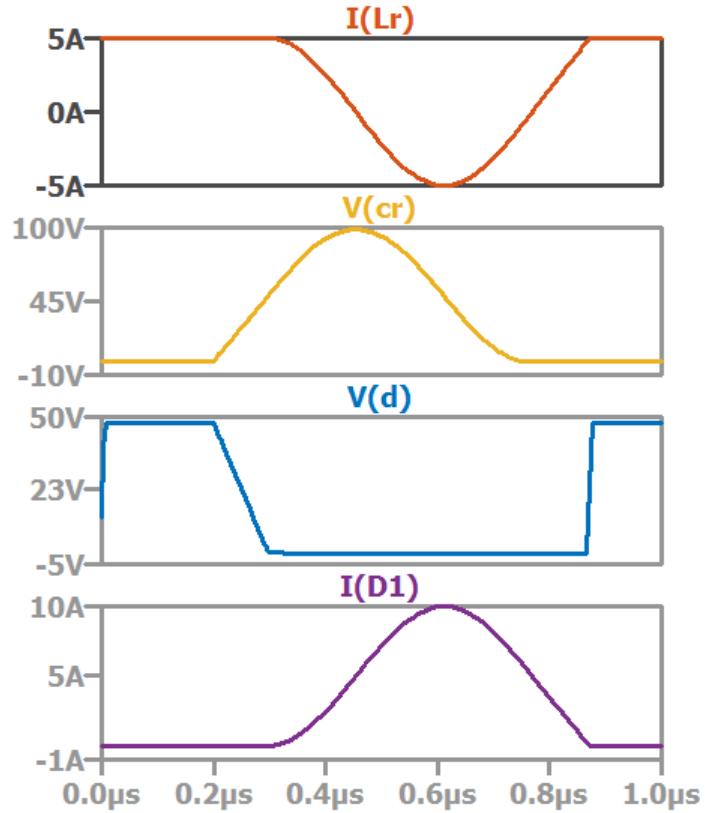
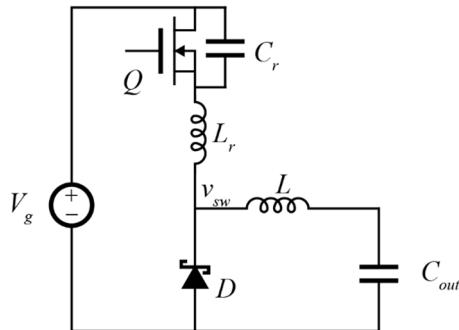


MOSFET Voltage Stresses

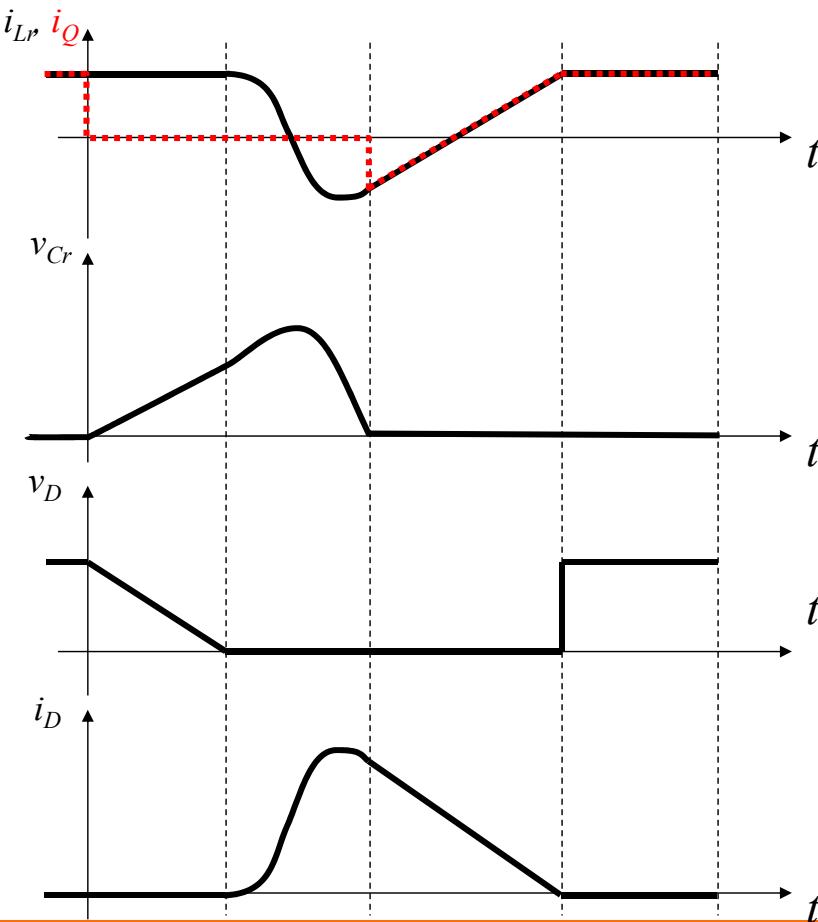
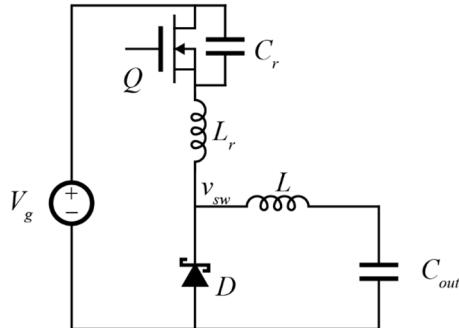
Test Circuit



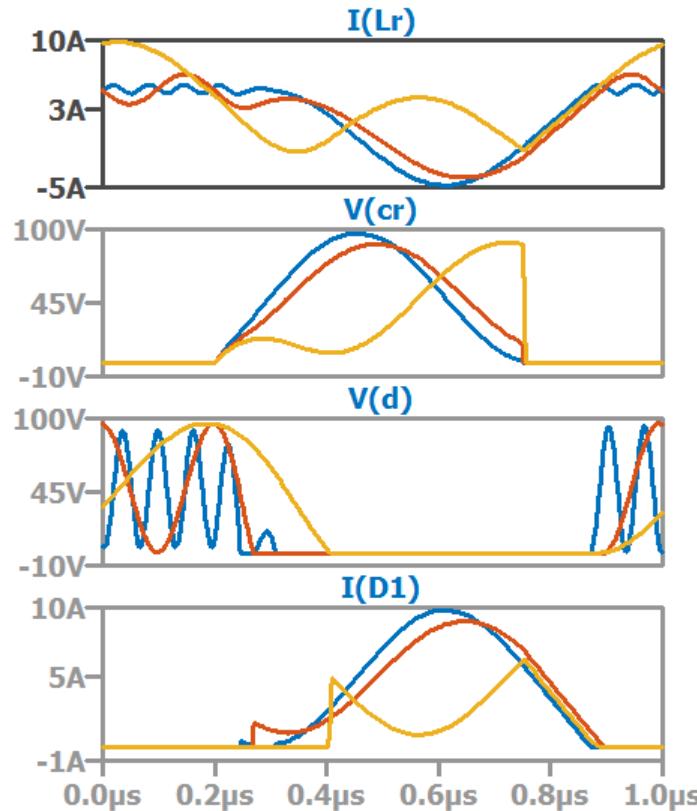
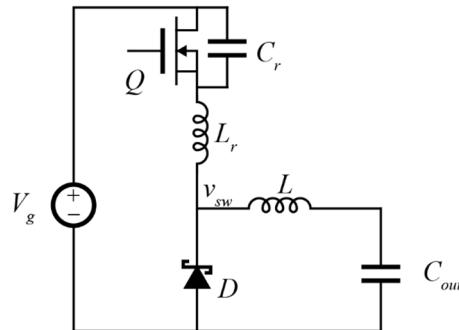
Simulation Results



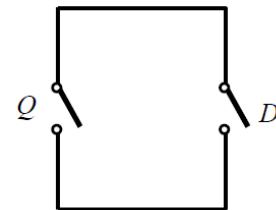
Diode Capacitance



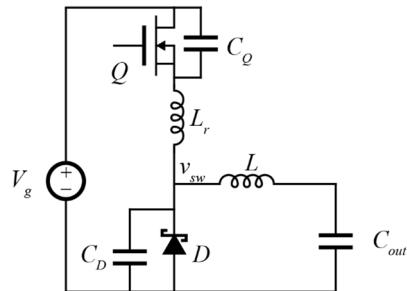
Simulation Results: Diode Capacitance



Wishlist: Multi-Resonant



ZVS-MR Buck



W. A. Tabisz and F. C. Lee, "Zero-voltage-switching multi-resonant technique-a novel approach to improve performance of high frequency quasi-resonant converters," *Power Electronics Specialists Conference, 1988*.

Operating Modes

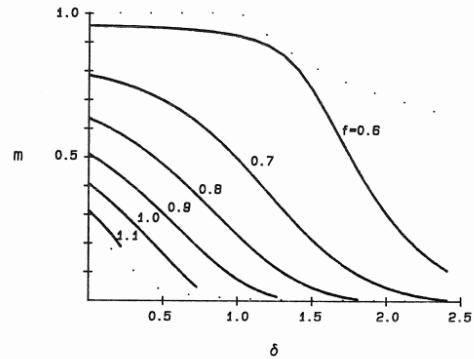


Figure 10.7: Load-to-output DC characteristics of a ZV-MR converter operating in modes (I, II)₁.

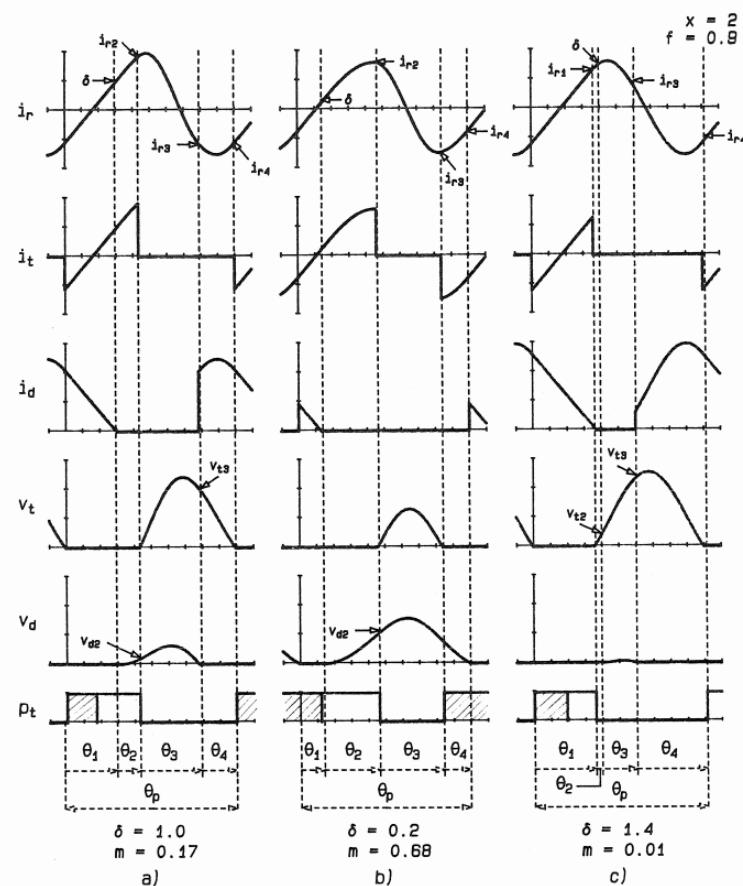
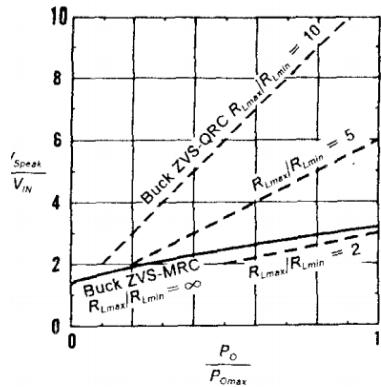


Figure 10.2: Typical waveforms for a ZV-MR converter operating in modes I₁ (a), II₁ (b) or III₁ (c).