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	Nota di contenuto	Pulse-Width Modulated DC--DC Power Converters; Contents; About the Author; Preface; Nomenclature; 1 Introduction; 1.1 Classification of Power Supplies; 1.2 Basic Functions of Voltage Regulators; 1.3 Power Relationships in DC-DC Converters; 1.4 DC Transfer Functions of DC-DC Converters; 1.5 Static Characteristics of DC Voltage Regulators; 1.6 Dynamic Characteristics of DC Voltage Regulators; 1.7 Linear Voltage Regulators; 1.7.1 Series Voltage Regulator; 1.7.2 Shunt Voltage Regulator; 1.8 Topologies of PWM DC-DC Converters; 1.9 Relationships Among Current, Voltage, Energy, and Power 1.10 Summary References; Review Questions; Problems; 2 Buck PWM DC-DC Converter; 2.1 Introduction; 2.2 DC Analysis of PWM Buck Converter for CCM; 2.2.1 Circuit Description; 2.2.2 Assumptions; 2.2.3 Time Interval: $0 < t$ DT; 2.2.4 Time Interval: DT $< t$ T; 2.2.5 Device Stresses for CCM; 2.2.6 DC Voltage Transfer Function for CCM; 2.2.7 Boundary Between CCM and DCM; 2.2.8 Capacitors; 2.2.9 Ripple Voltage in Buck Converter for CCM; 2.2.10 Switching Losses with Linear MOSFET Output Capacitance; 2.2.11 Switching Losses with Nonlinear

MOSFET Output Capacitance

Sommario/riassunto	PWM DC-DC power converter technology underpins many energy conversion systems including renewable energy circuits, active power factor correctors, battery chargers, portable devices and LED drivers. Following the success of Pulse-Width Modulated DC-DC Power Converters this second edition has been thoroughly revised and expanded to cover the latest challenges and advances in the field. Key features of 2nd edition: Four new chapters, detailing the latest advances in power conversion, focus on: small-signal model and dynamic characteristics of the buck converter in continuous conduction