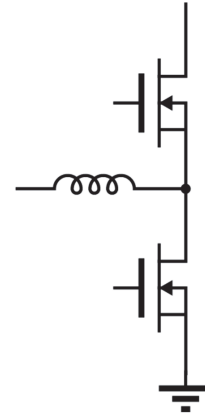# Synchronous Switching
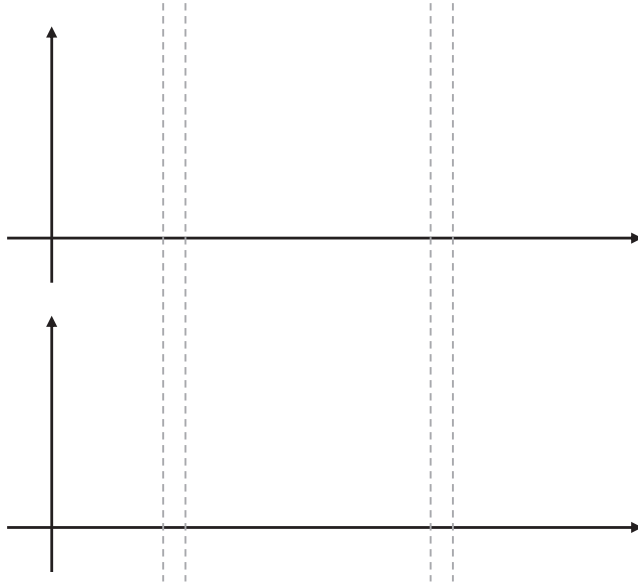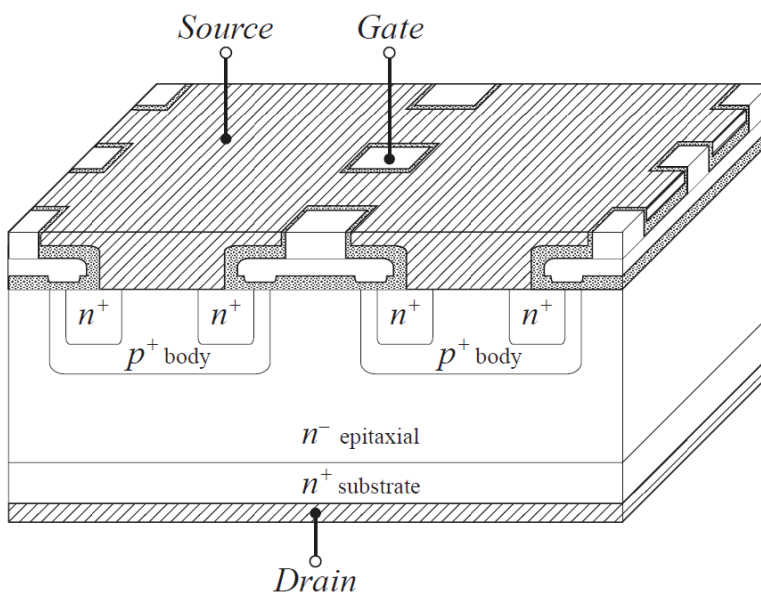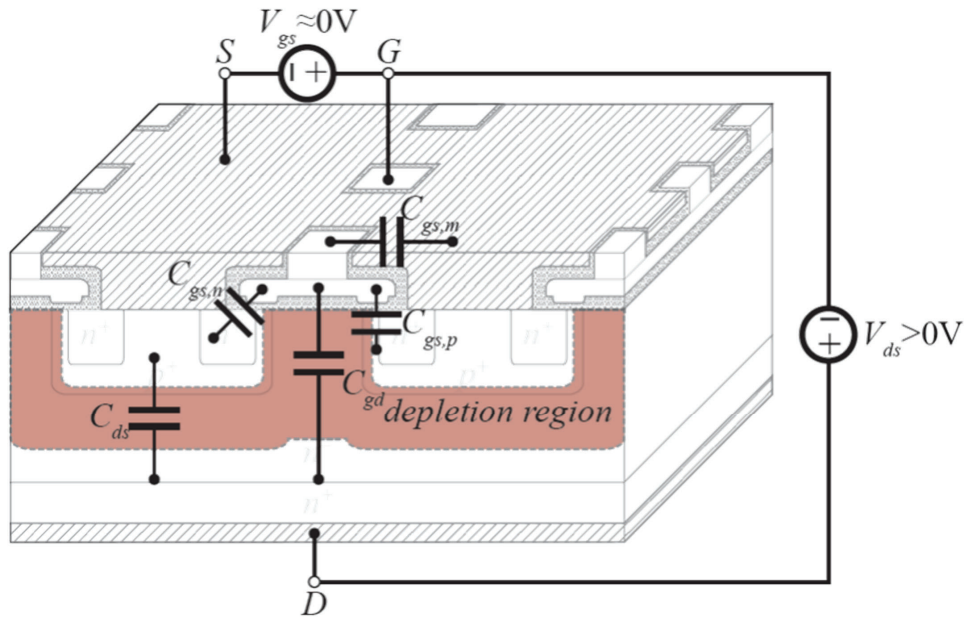
MOSFET Cross Section

MOSFET Depletion Capacitance

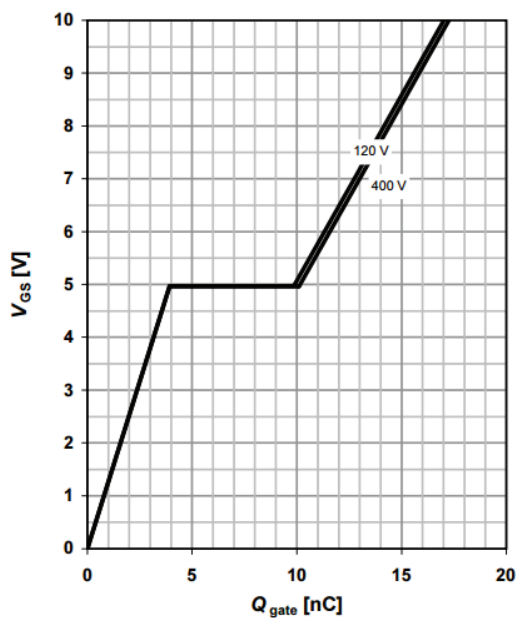# Gate Charge

9 Typ. gate charge

$V_{GS}=f(Q_{gate})$; I_D=5.2 A pulsed
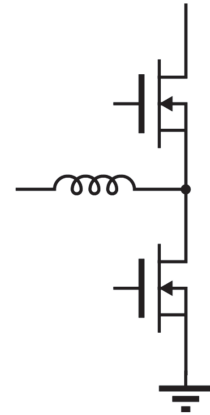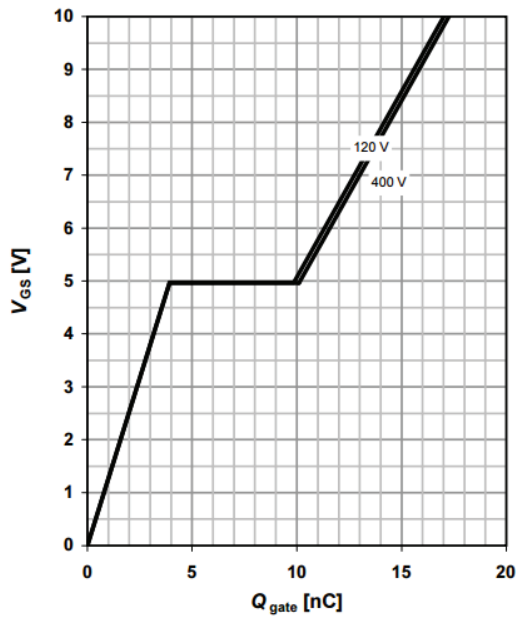
parameter: V_{DD}

Overlap Time

9 Typ. gate charge

V_{GS}=f(Q_{gate}); I_D=5.2 A pulsed

parameter: V_{DD}

Gate threshold voltage	$V_{GS(th)}$	V_{DS}=V_{GS}, I_D=0.34 mA	2.5	3	3.5
Gate resistance	R_G	f=1 MHz, open drain	-	1.8	-	Ω

FET Turn-On