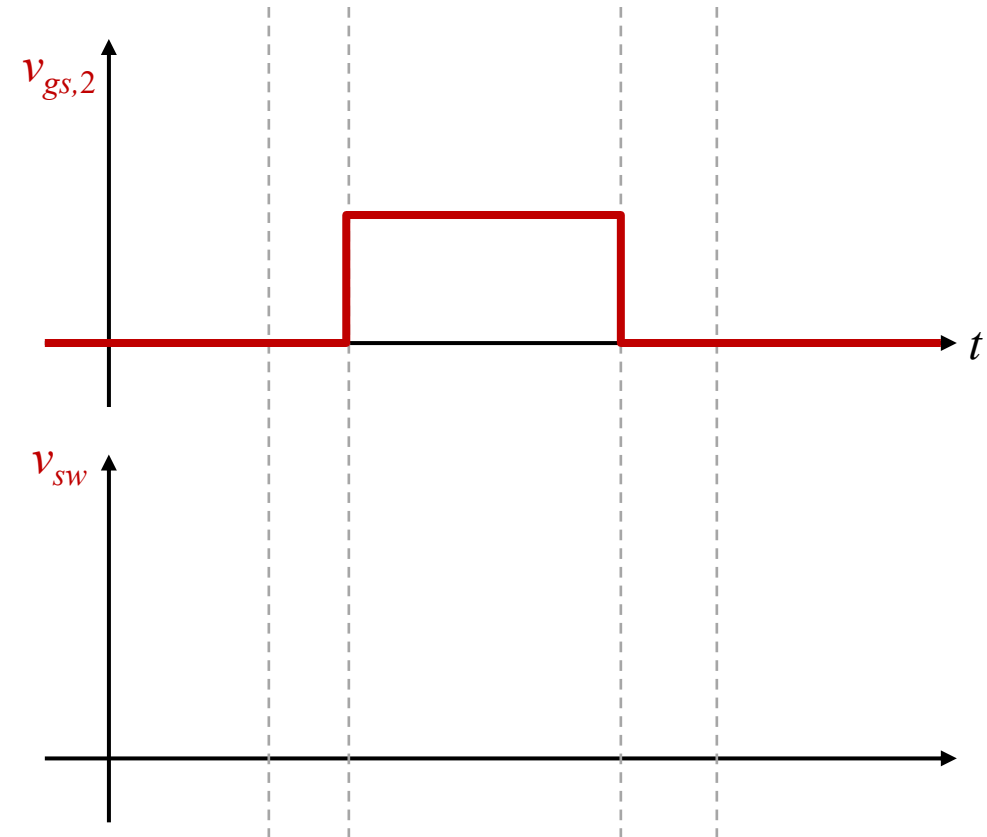
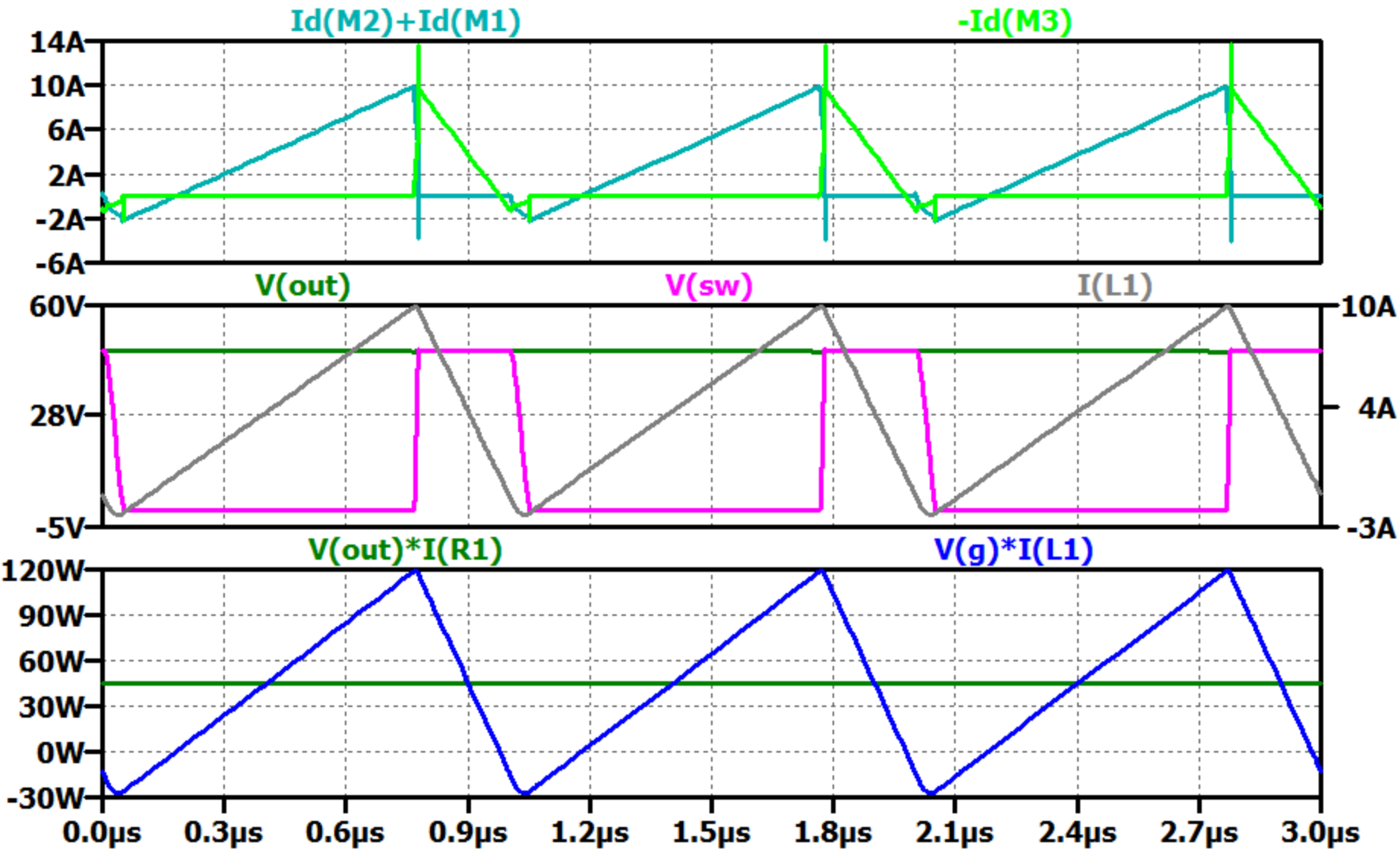


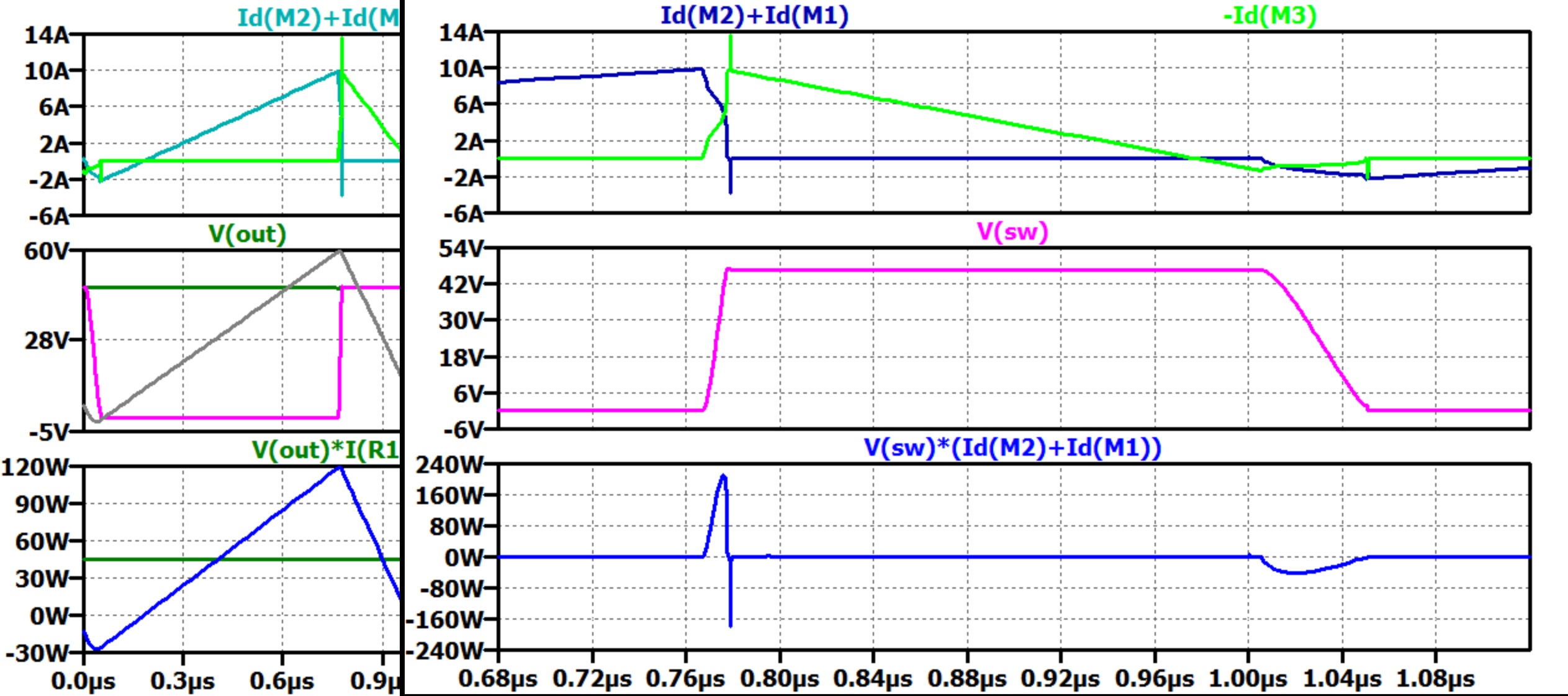
Ideal Switching Waveforms



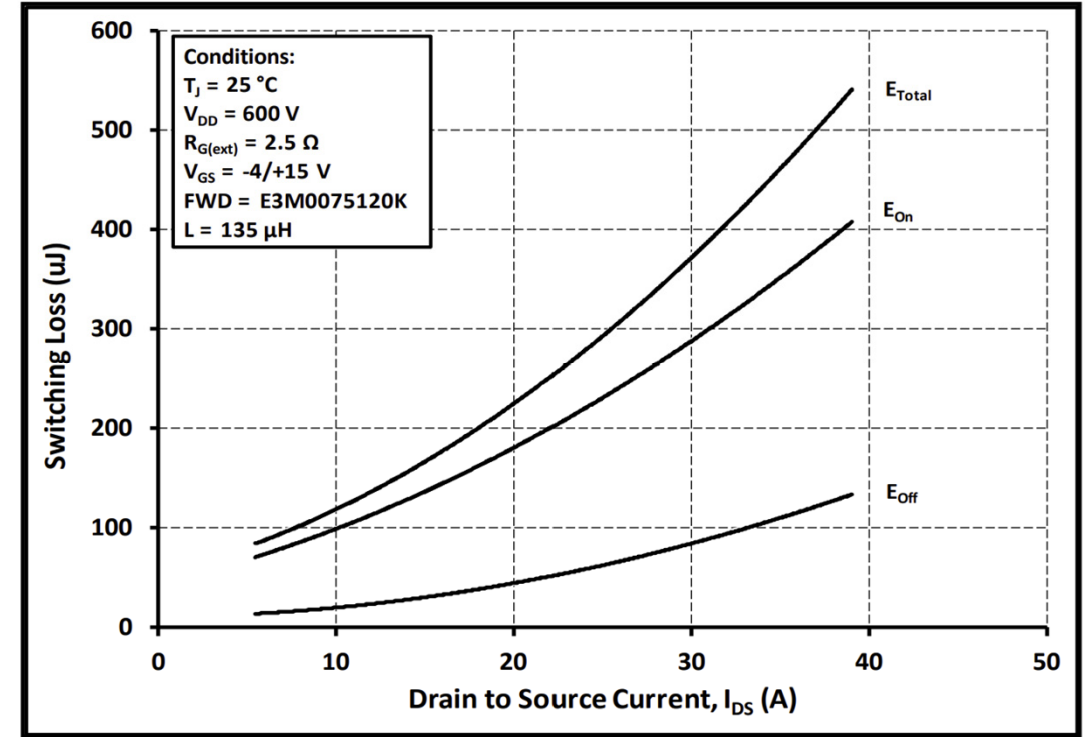
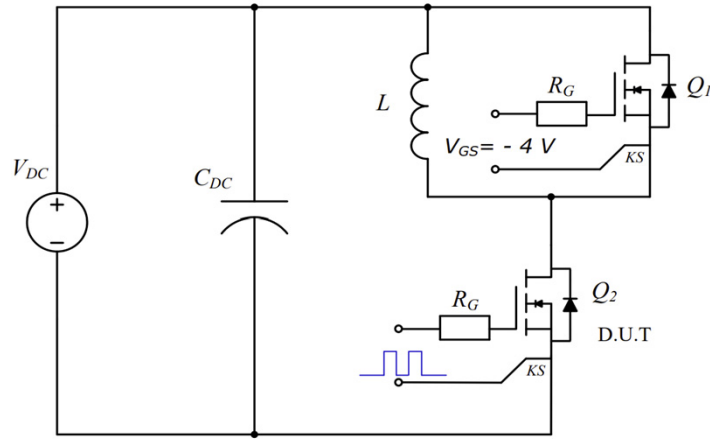
Synchronous Simulation (L3)

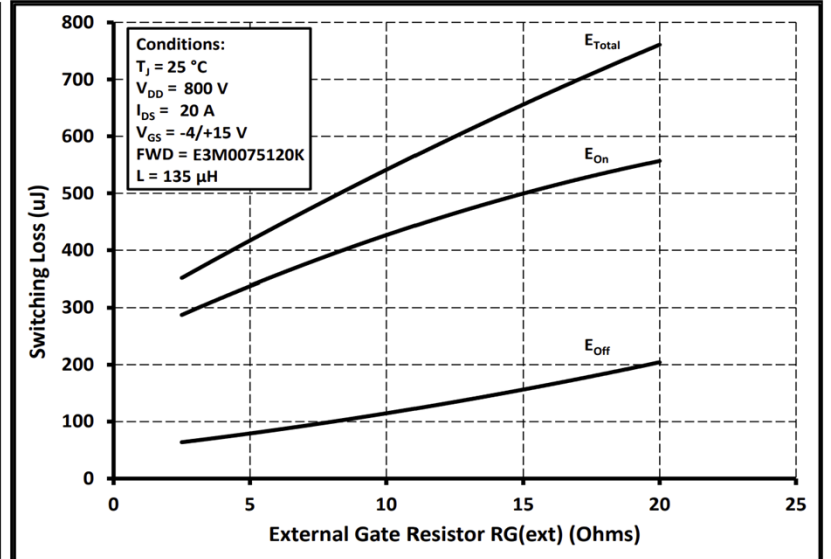
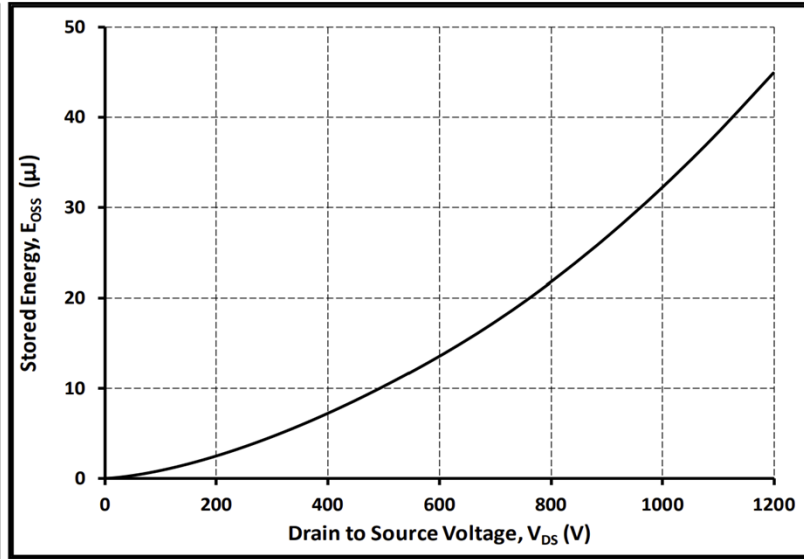
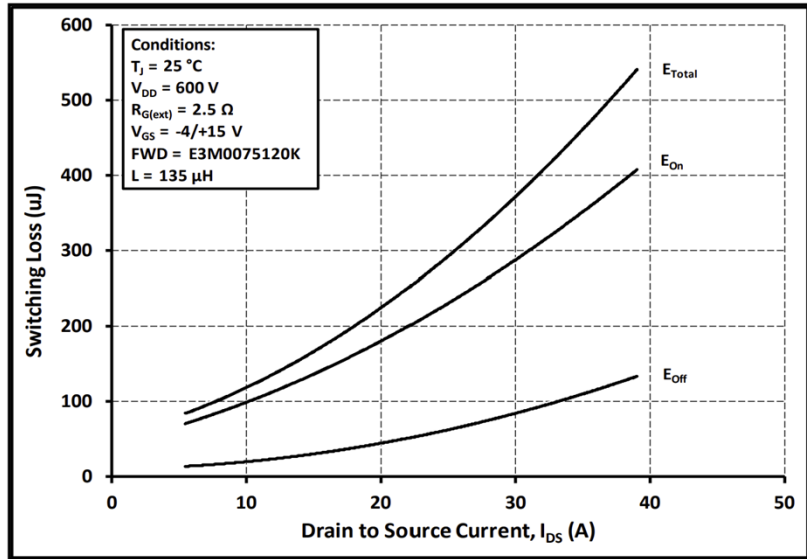


Synchronous Simulation (L3)



Double-Pulse Test

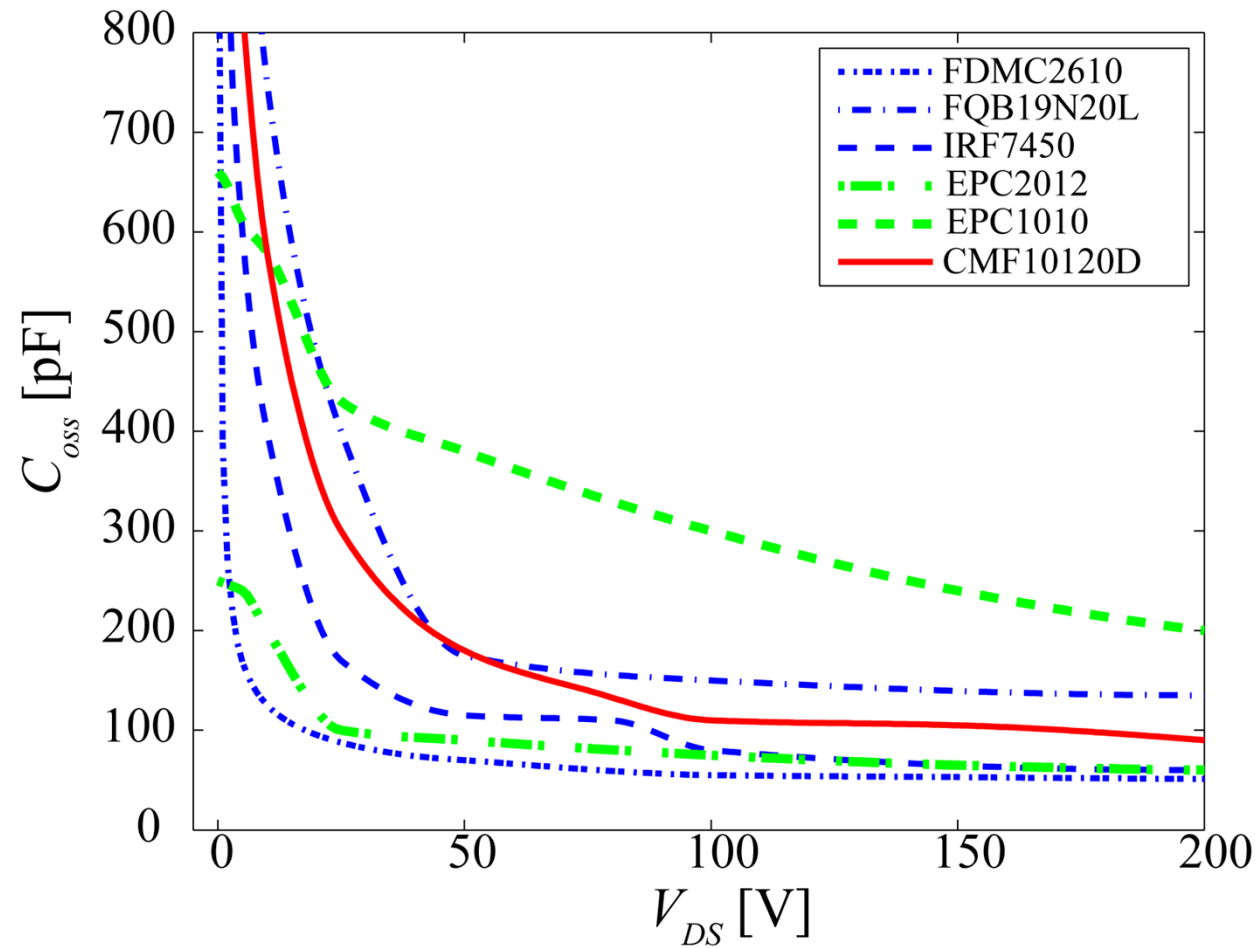




Capacitive switching loss

ANALYSIS OF NONLINEAR CAPACITANCES

Example Device C_{oss}



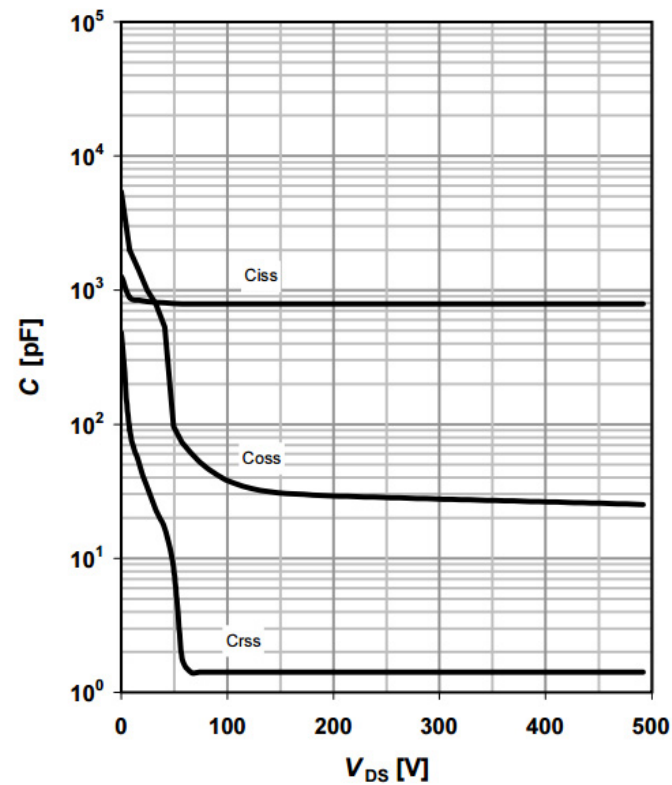
Datasheet Reported Capacitance



IPB60R385CP

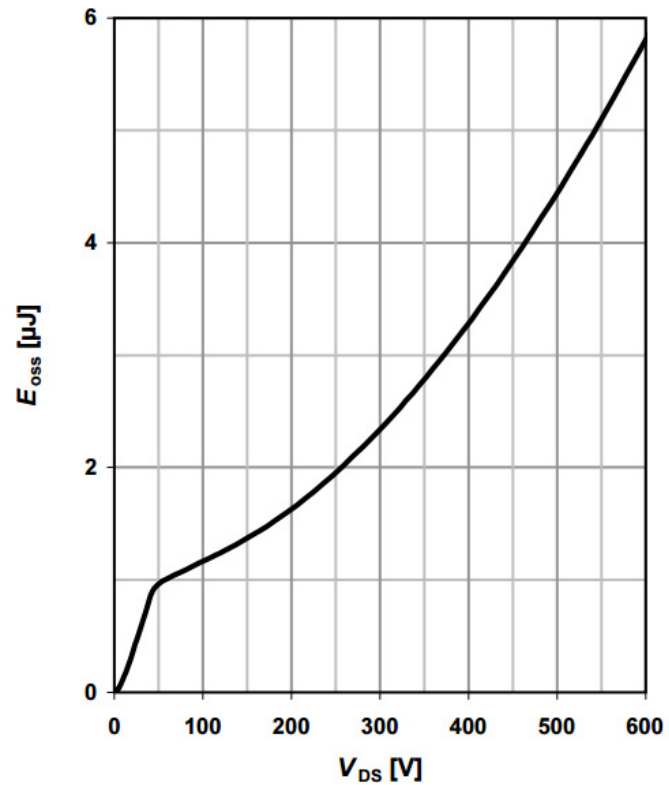
13 Typ. capacitances

$C=f(V_{DS}); V_{GS}=0\text{ V}; f=1\text{ MHz}$



14 Typ. Coss stored energy

$E_{oss}=f(V_{DS})$



Modeling Nonlinear Capacitances

Energy and Charge Equivalents

C_{oss} Losses in a Half Bridge

