

DC-DC Boost Converter 2-Phase $V_o=800V$ $I_o=40A$

Input : $V_{in}=250V$

Output : $V_o=800V$
 $I_o=40A$

Gate Drive : $V_d=18V$
 $R_{source}=2\Omega$
 $R_{sink}=1\Omega$

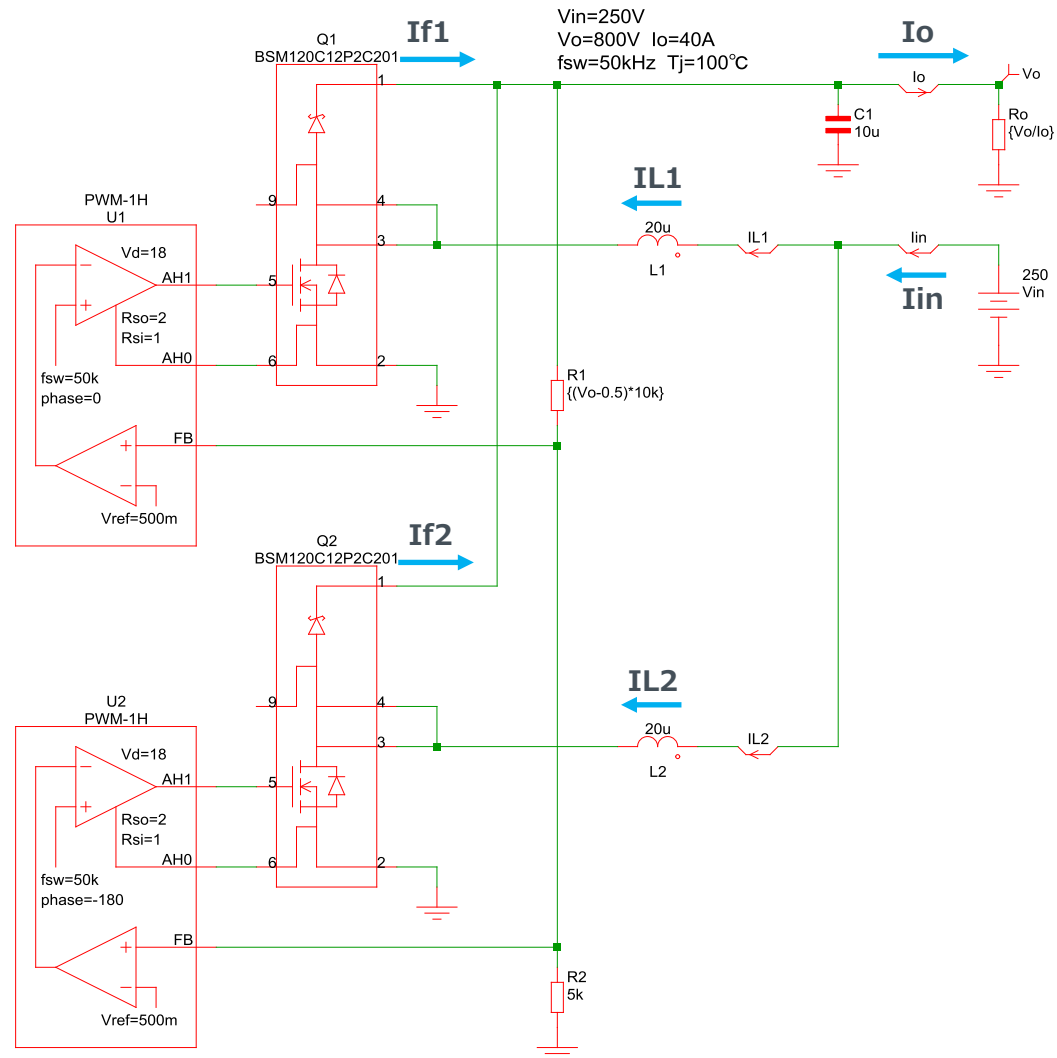
Q1,Q2 : BSM120C12P2C201
SiC Power Module
(1200V 120A)

L1,L2 : 20uH

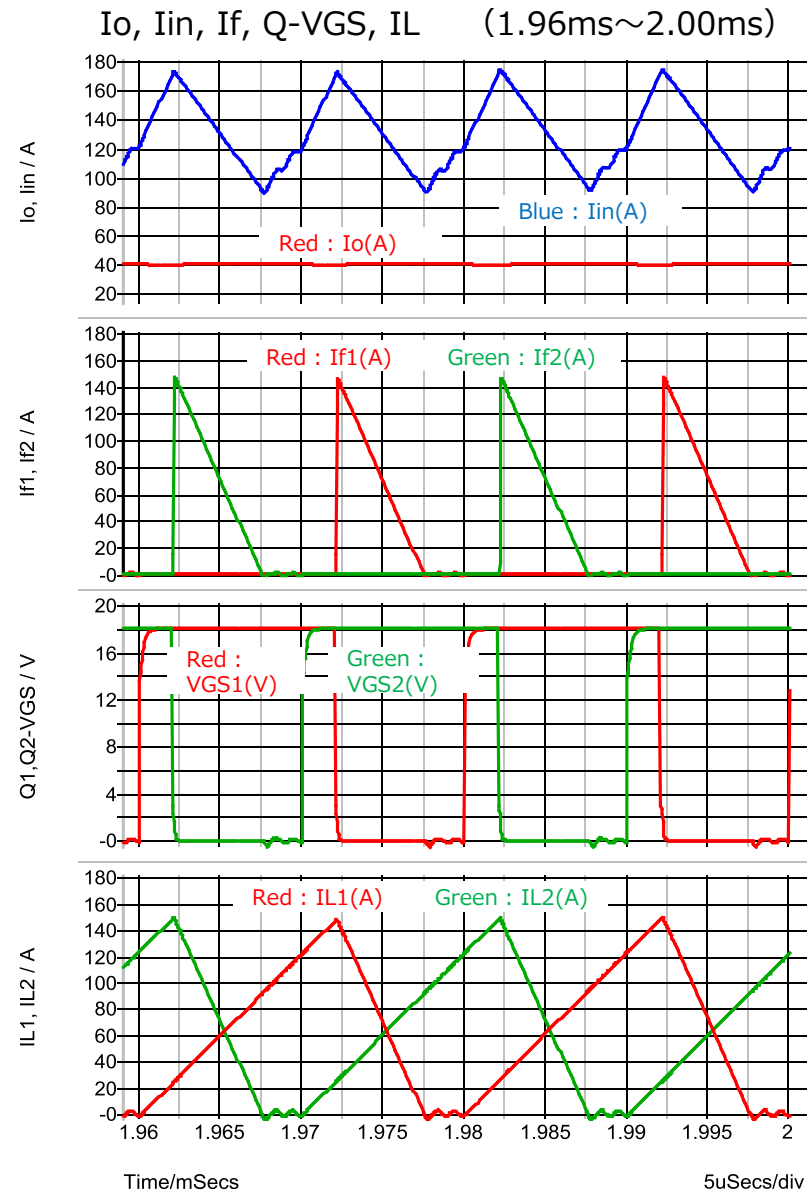
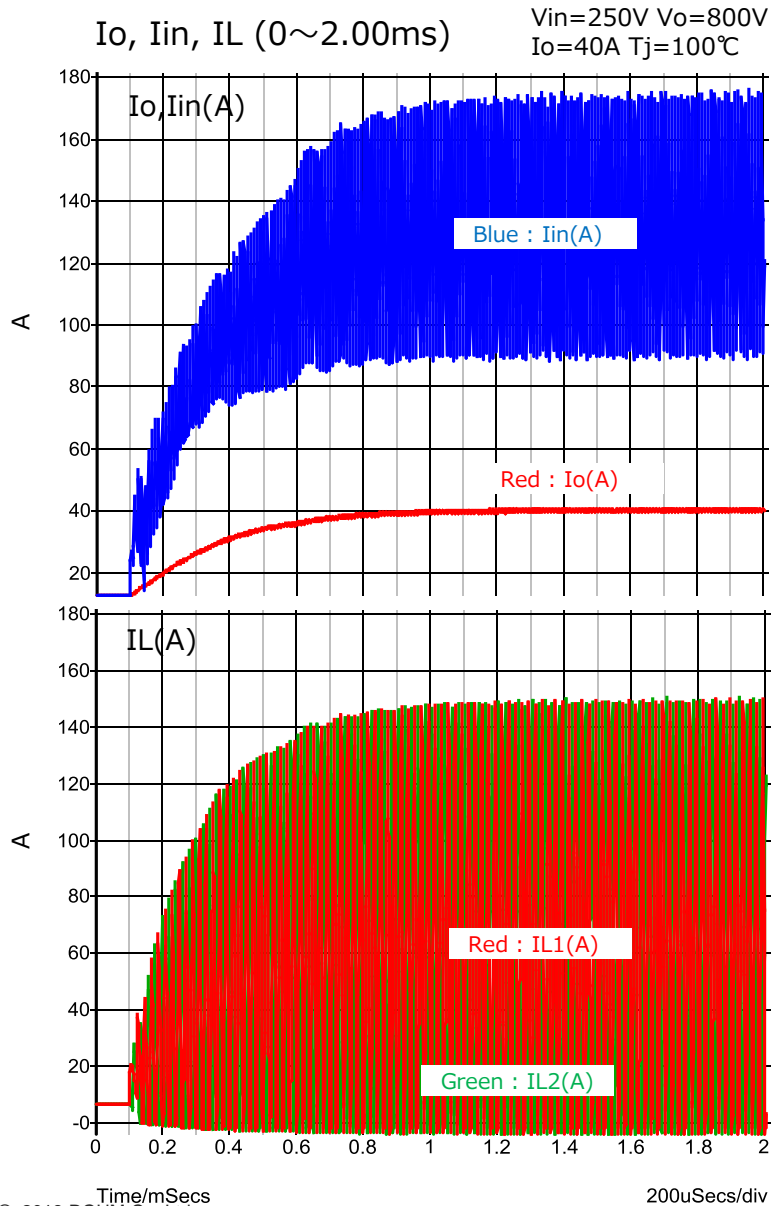
C1 : 10uF

$T_j=100^\circ C$

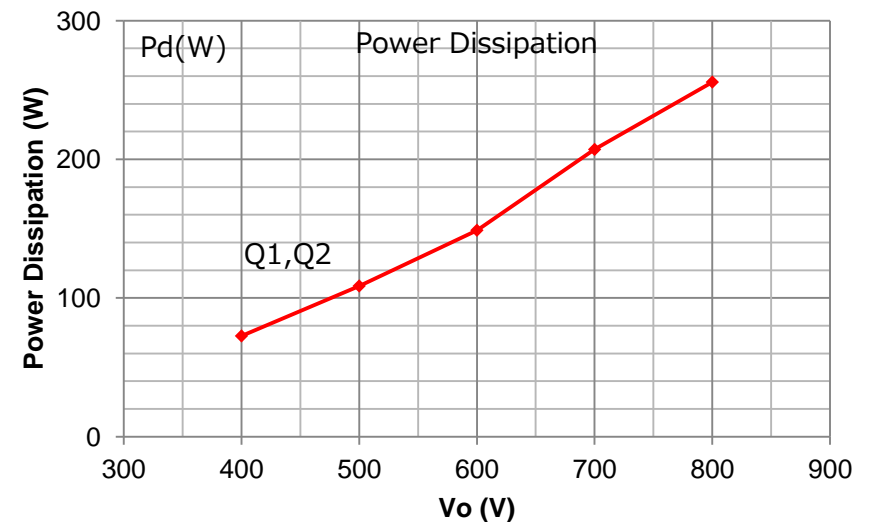
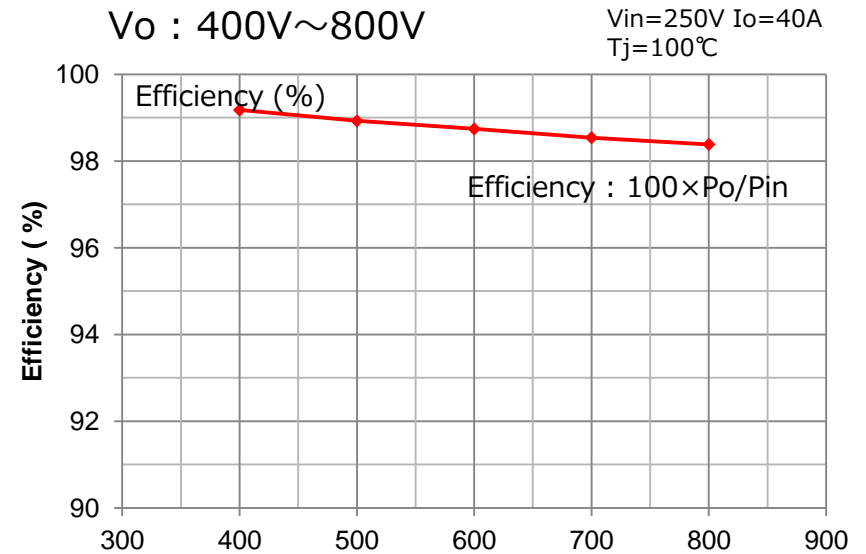
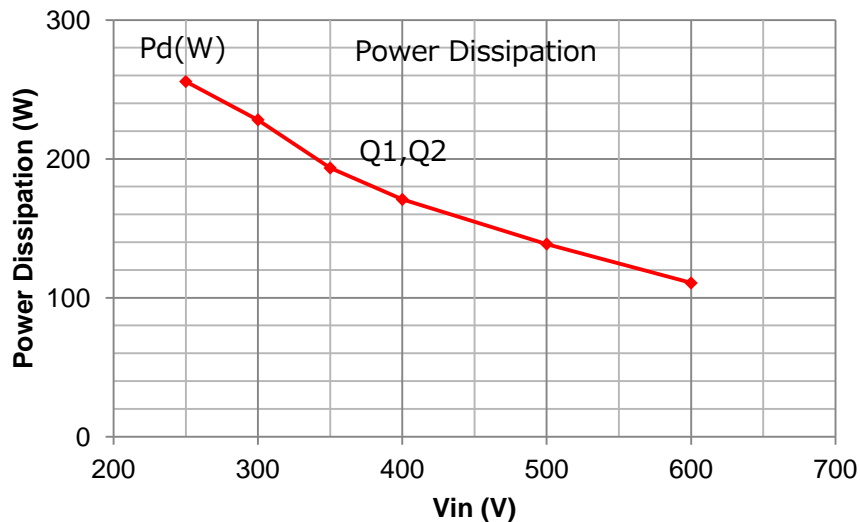
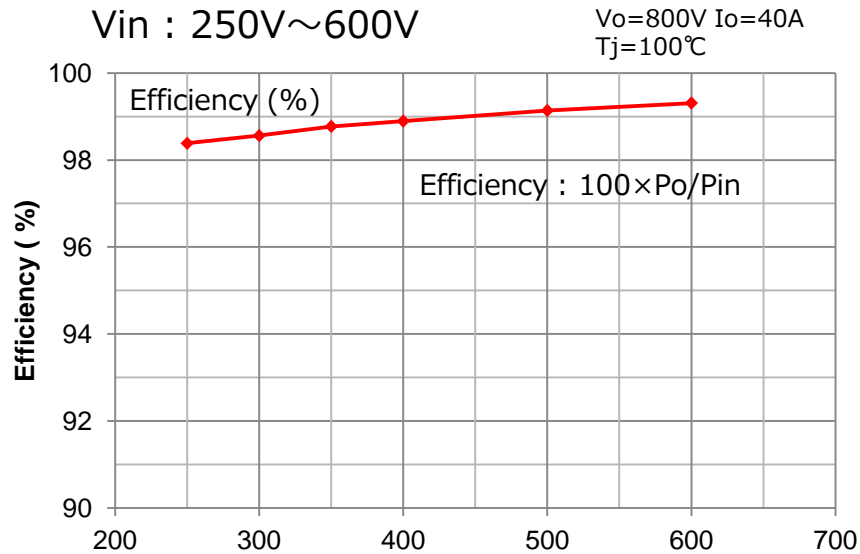
DC-DC Boost Converter 2-Phase $V_o=800V$ $I_o=40A$ Simulation Circuit



Simulation Waveform



Efficiency, Power Dissipation 1



Efficiency, Power Dissipation 2

