DC-DC Buck Synchro Converter 2-Phase Vo=250V Io=200A

Input : Vin=800V

Output : Vo=250V
Io=200A

Gate Drive : Vd=18V
R source=2Ω
R sink=1Ω

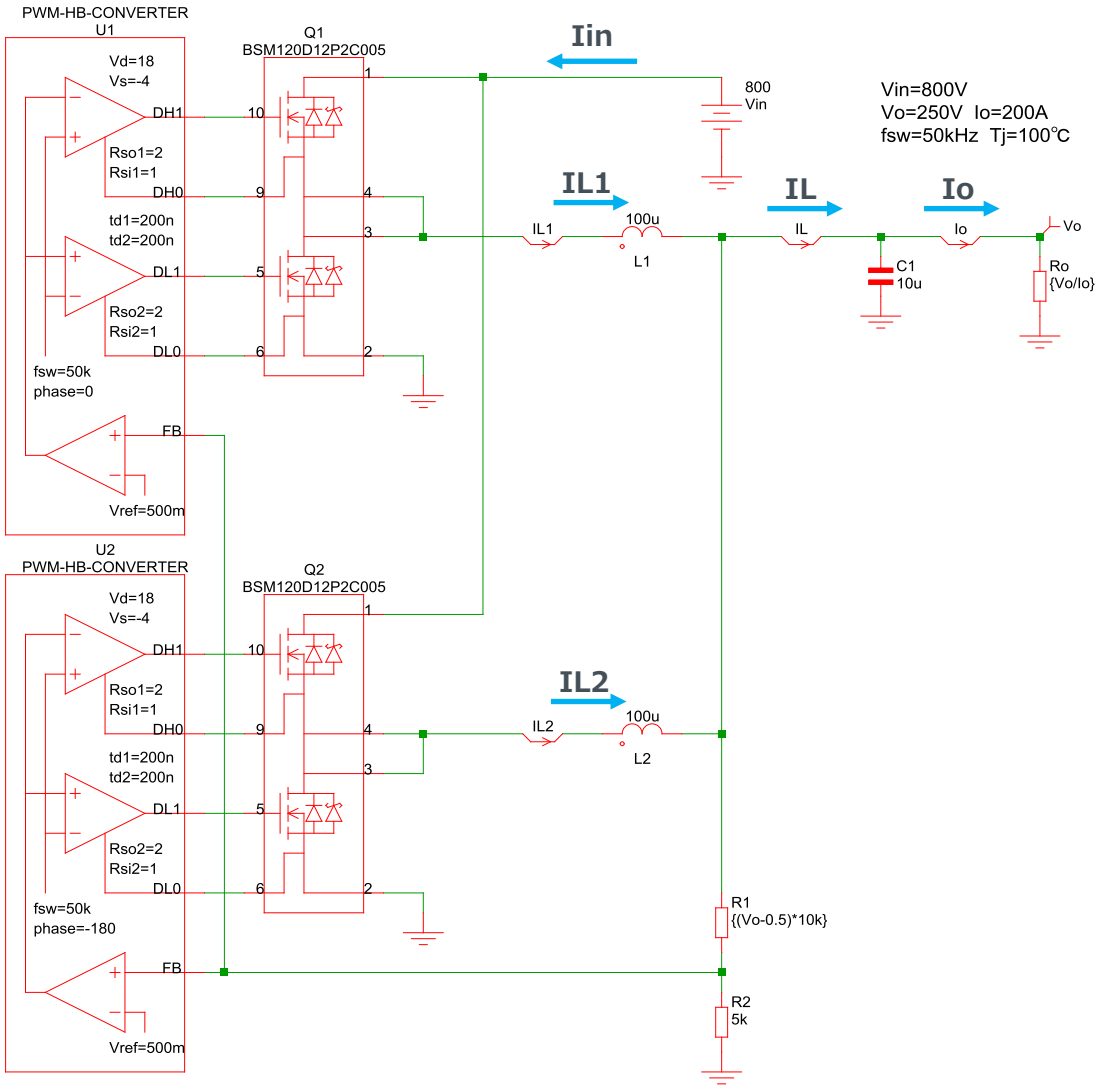
Q1 : BSM120D12P2C005
SiC Power Module
(1200V 120A)

L1, L2 : 100uH

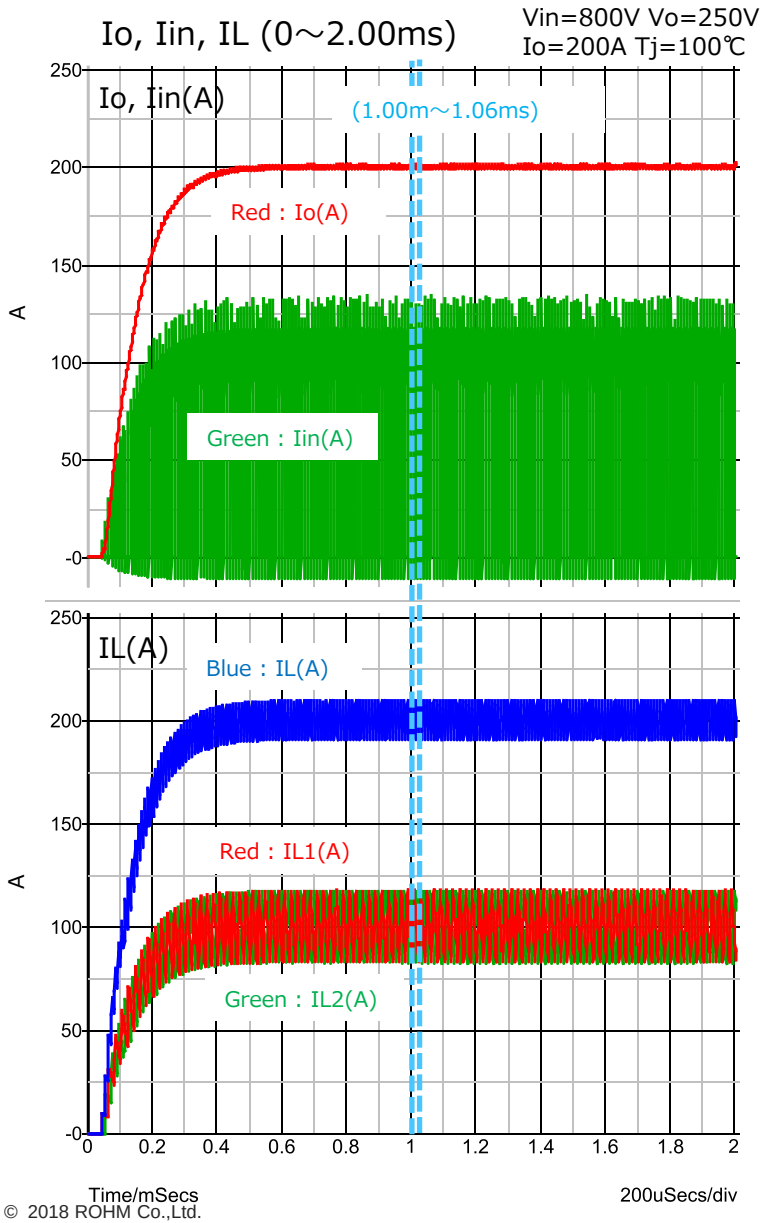
C1 : 10uF

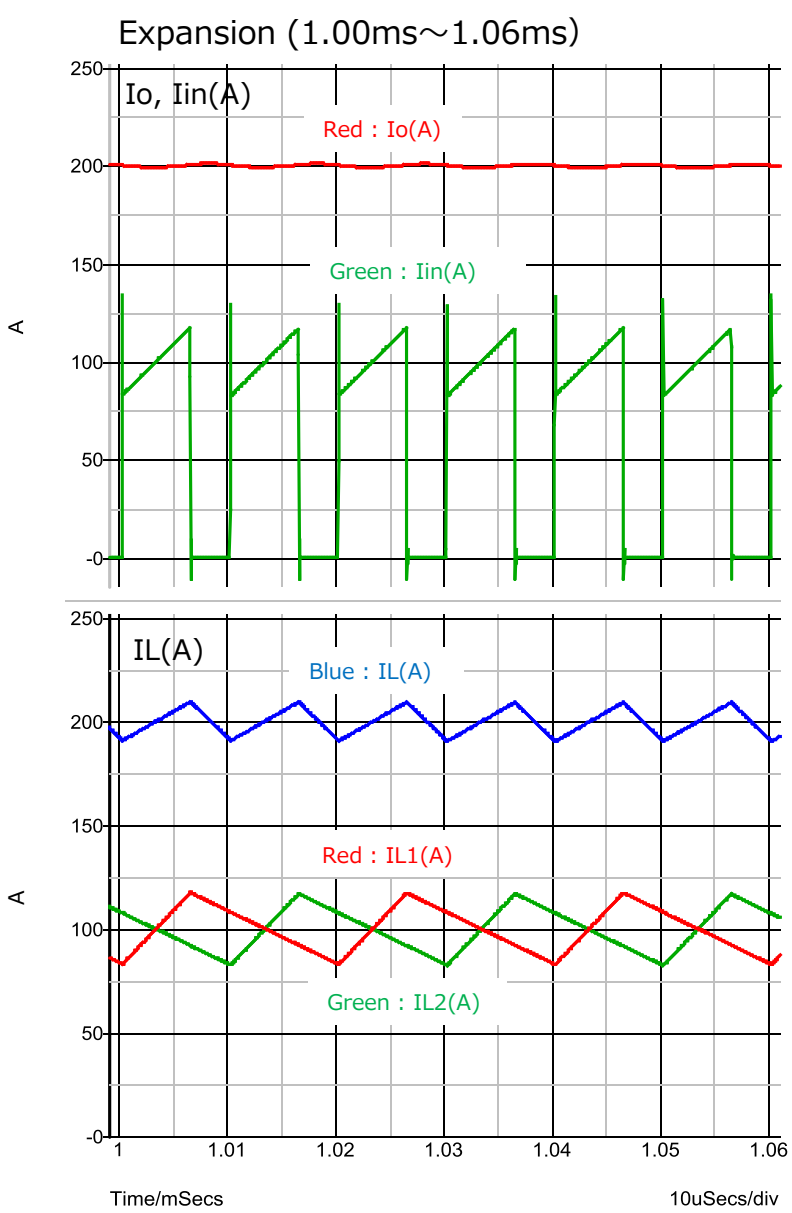
Tj=100℃

DC-DC Buck Synchro Converter 2-Phase Vo=250V Io=200A Simulation Circuit

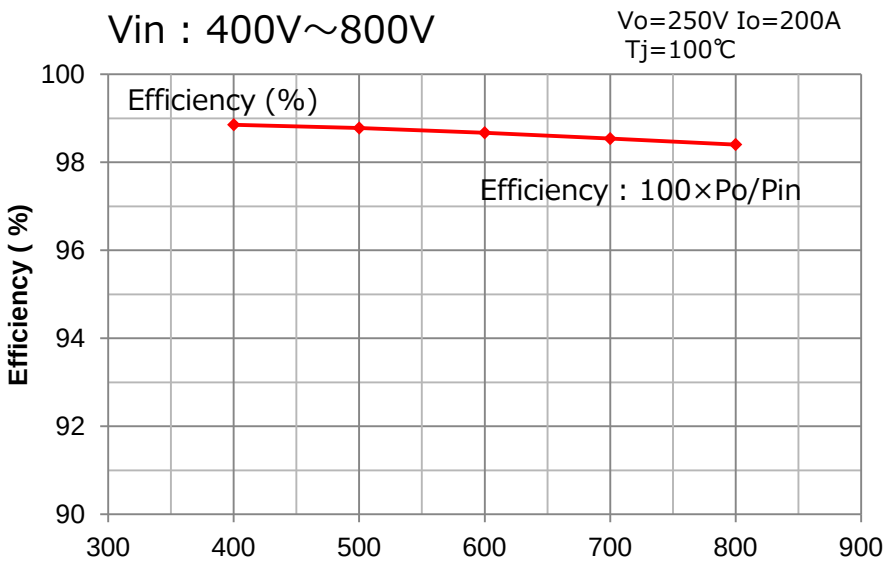


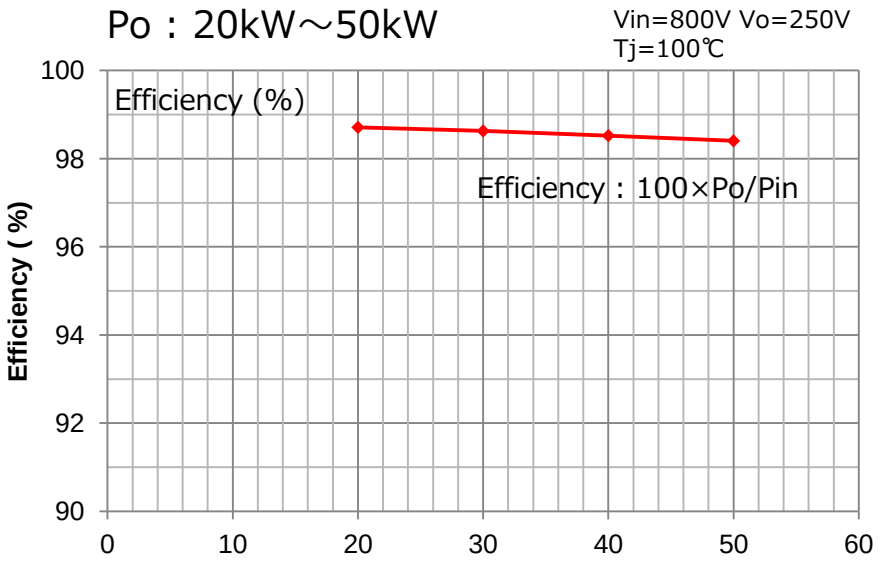
Simulation Waveform

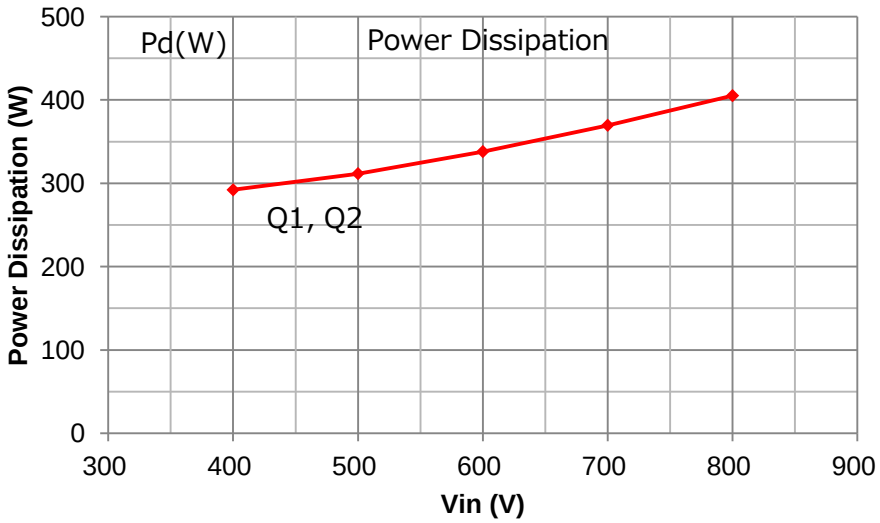


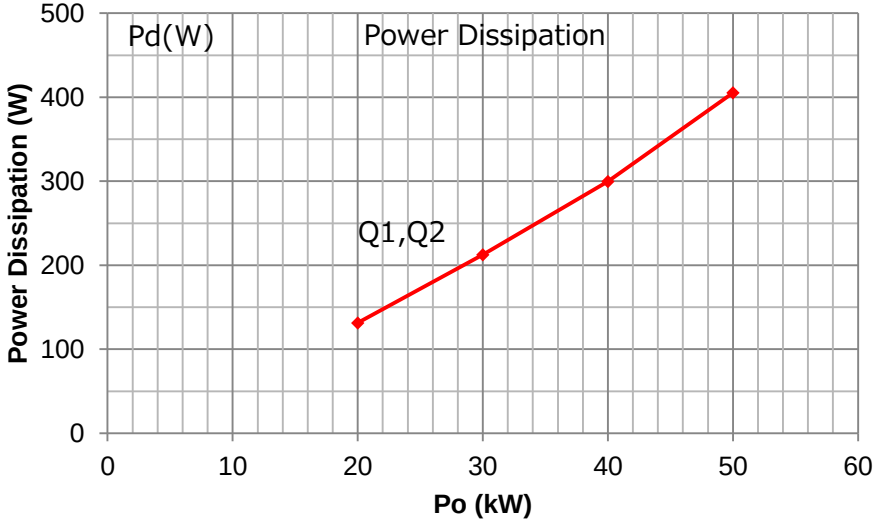


Efficiency, Power Dissipation 1









Efficiency, Power Dissipation 2