

DC-DC Phase-Shift Buck Converter $V_o=12V$ $I_o=50A$

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Input : $V_{in}=800V_{dc}$

**Output : $V_o=12V_{dc}$
 $I_o=50A_{dc}$**

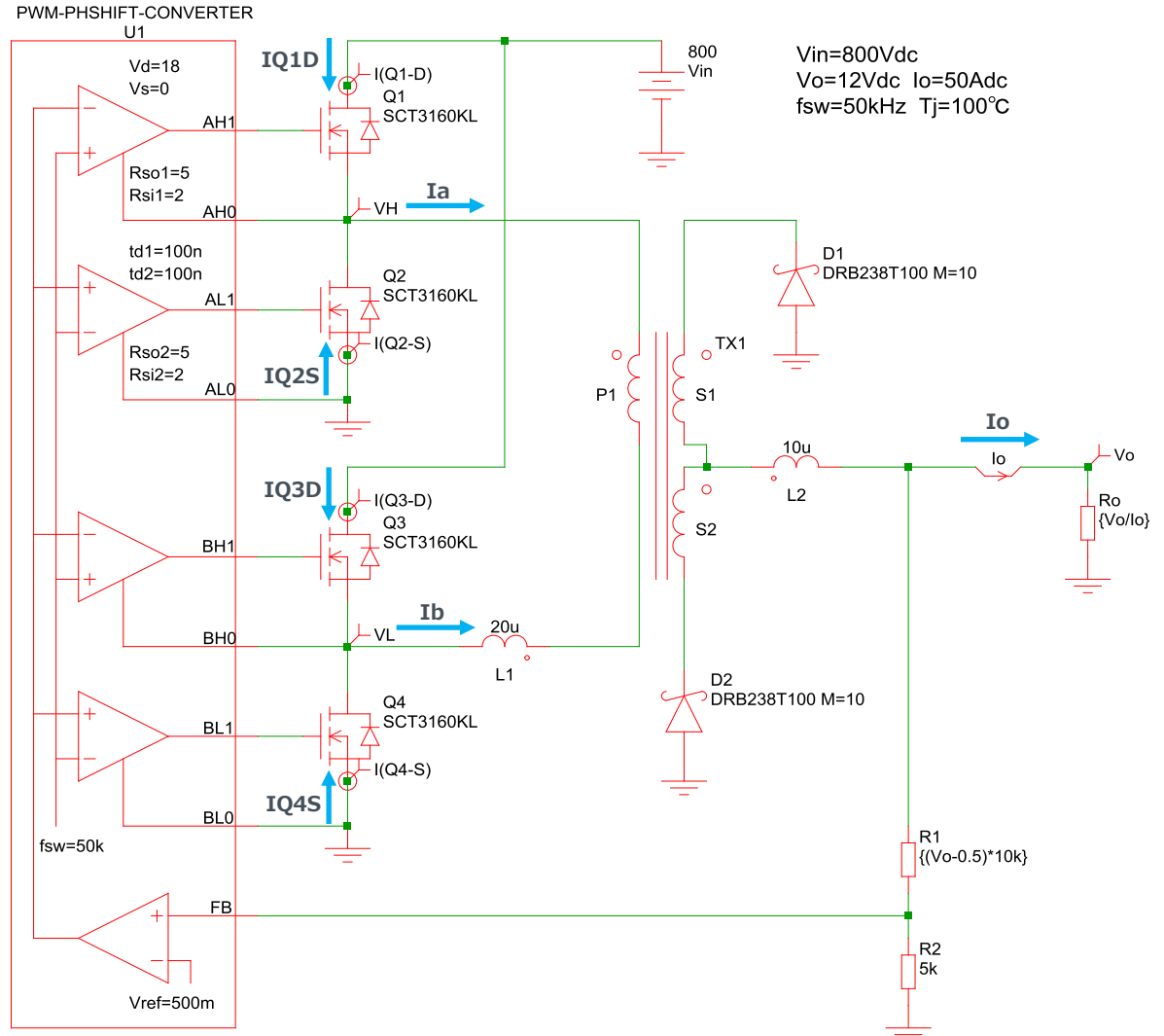
**Gate Drive : $V_d=18V$
 $R_{source}=5\Omega$
 $R_{sink}=2\Omega$**

**$Q1\sim Q4$: SCT3160KL
SiC MOSFET(1200V 17A)**

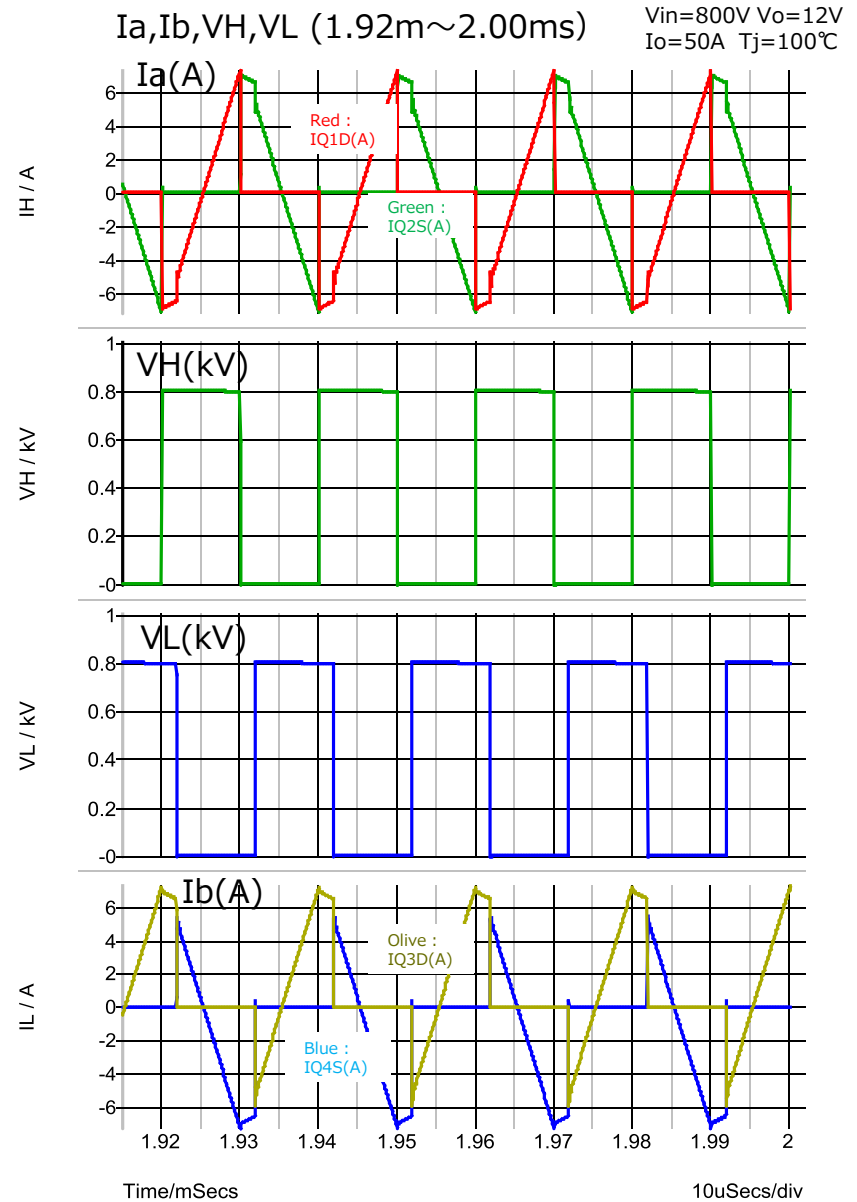
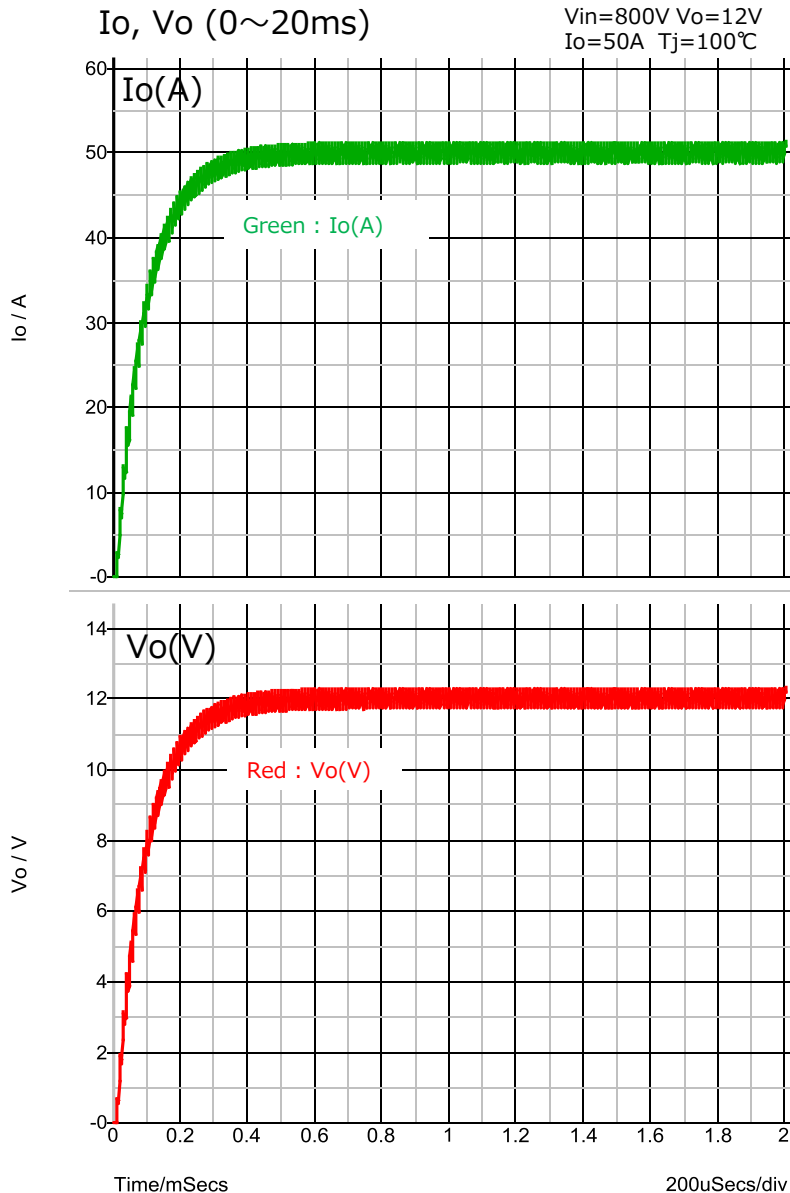
**$D1,D2$: RB238T100
SBD (40V 20A)**

$L1$: 20uH $L2$: 10uH

$T_j=100^\circ C$



Simulation Waveform



Efficiency, Power Dissipation

