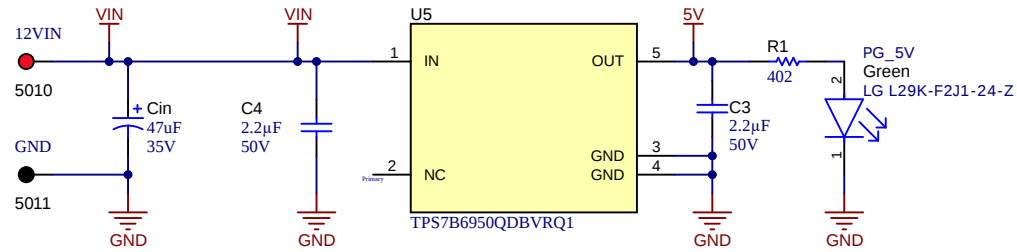




Vin= 8V to 18Vin (12V typ)

For VIN = 24V, use UCC14241-Q1

5Vout for primary side logic

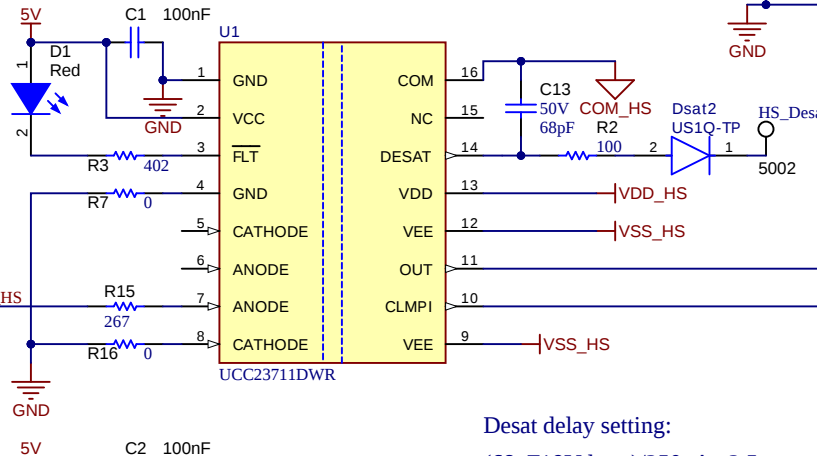
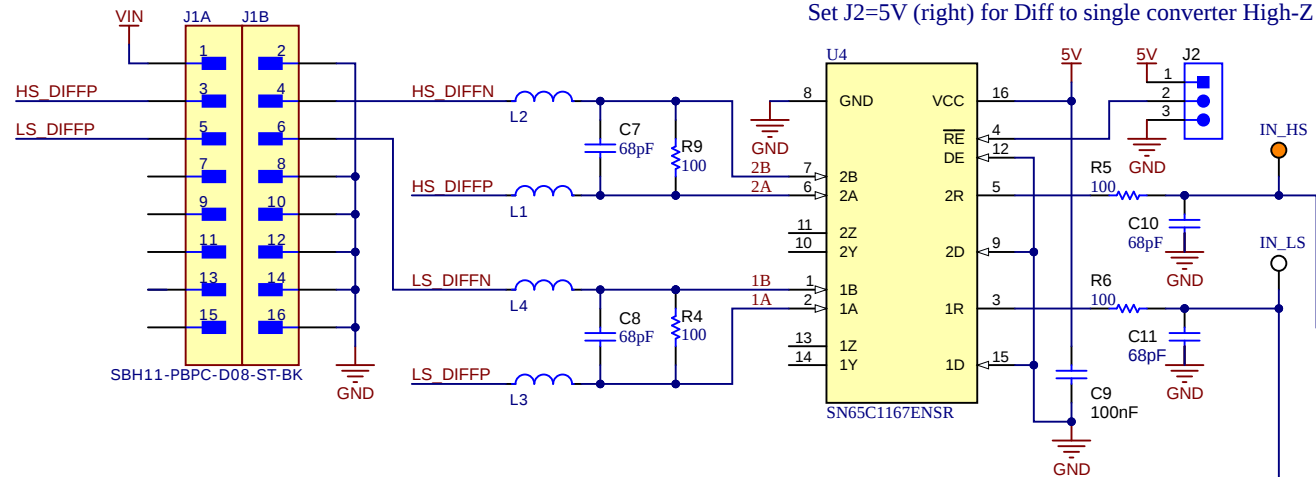


Depopulate R70 and R40 to use external supplies

Jumper to disable DC/DC, use bootstrap

For VSS between 0V and -2.5V, R74 is not populated
Add R101 by hand from VDD_HS to FBVVEE
 $R101 = R73 \times (VDD - VSS - 2.5) / (2.5 + VSS) = 349K$
For example: VSS=-2V, VDD=18V, R73=10k

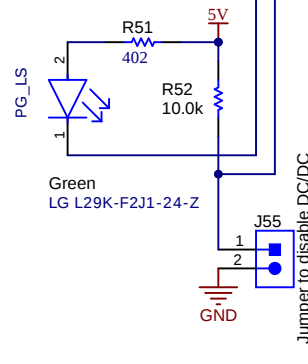
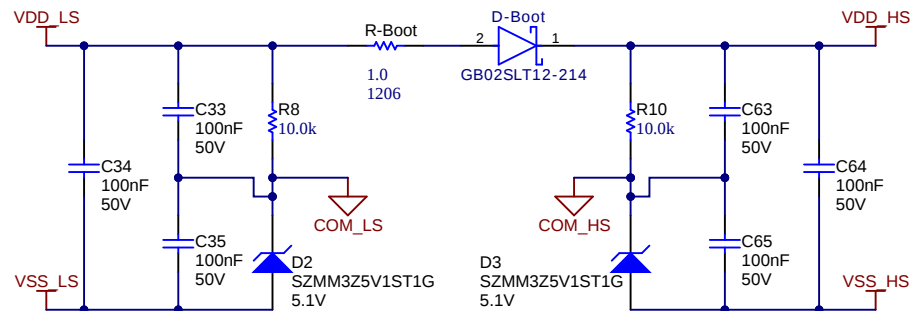
Set J2=5V (right) for Diff to single converter High-Z



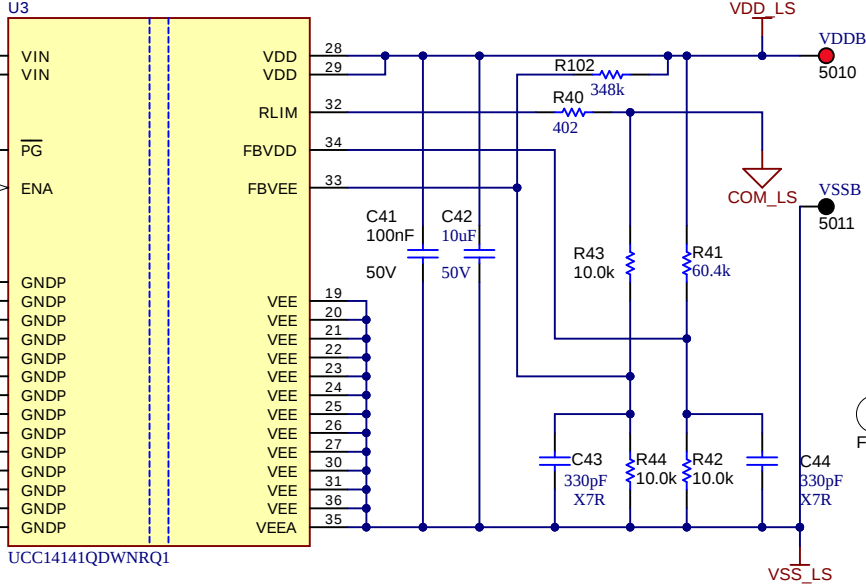
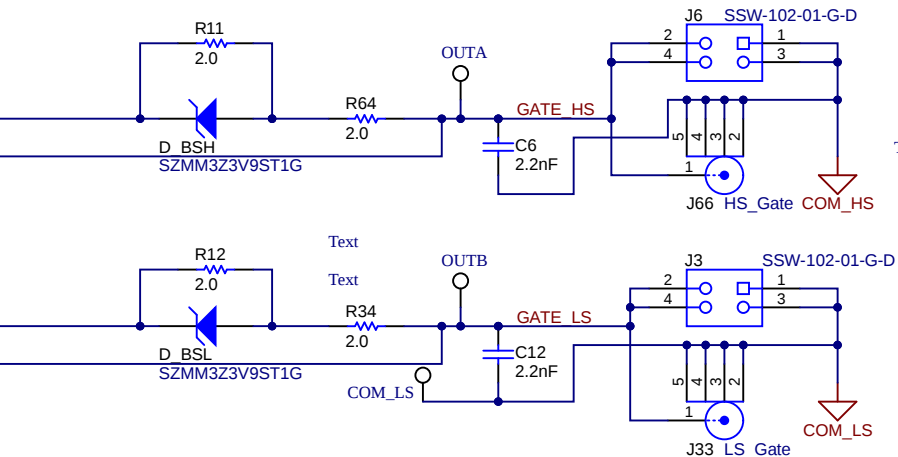
Desat delay setting:
 $(68pF \times 9V_{desat}) / 250uA = 2.5us$

$VDD_B - VSS_B = 2.5V \times (1 + R41/R42) = 17.5V$
 $VCOM - VSS_B = 2.5V \times (1 + R43/R44) = 5V$

To test Bootstrap, U2 and supporting parts do not need to be removed.
Bootstrap option: Disable U2 and add R-Boot
U2's C71 & C72 can act as Cboot



$VDD_A - VSS_A = 2.5V \times (1 + R71/R72) = 17.5V$
 $VCOM - VSS_A = 2.5V \times (1 + R73/R74) = 5V$



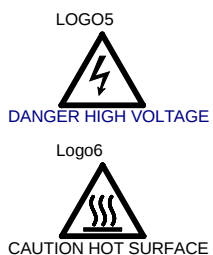
PCB Number: HVP120
PCB Rev: A

PCB LOGO
Texas Instruments
CE Mark

LBL1
PCB Label
THT-14-423-10
Size: 0.65" x 0.20"

PCB LOGO
FCC disclaimer

PCB LOGO
WEEE logo



Variant/Label Table

Variant	Label Text
001	showing all parts: dividers shown for +15V/-5V
002	12Vin 2xUCC14141 +18V/-2V no boot

ZZ1
Label Assembly Note
This Assembly Note is for PCB labels only
ZZ2
Assembly Note
These assemblies are ESD sensitive, ESD precautions shall be observed.
ZZ3
Assembly Note
These assemblies must be clean and free from flux and all contaminants. Use of no clean flux is not acceptable.
ZZ4
Assembly Note
These assemblies must comply with workmanship standards IPC-A-610 Class 2, unless otherwise specified.

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Orderable: yes
TID #: 6654732
Number: HVP120
Rev: A
SVN Rev: Not in version control
Drawn By: Sean Cashin
Engineer: Sean Cashin
Designed for: Public Release
Project Title: Gate driver daughtercard for Wolfspeed eval board
Sheet Title:
Assembly Variant: [No Variations]
File: HVP120A.SchDoc
Contact: <http://www.ti.com/support>
Mod. Date: 8/11/2025
Sheet: 1 of 1
Size: B
http://www.ti.com
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