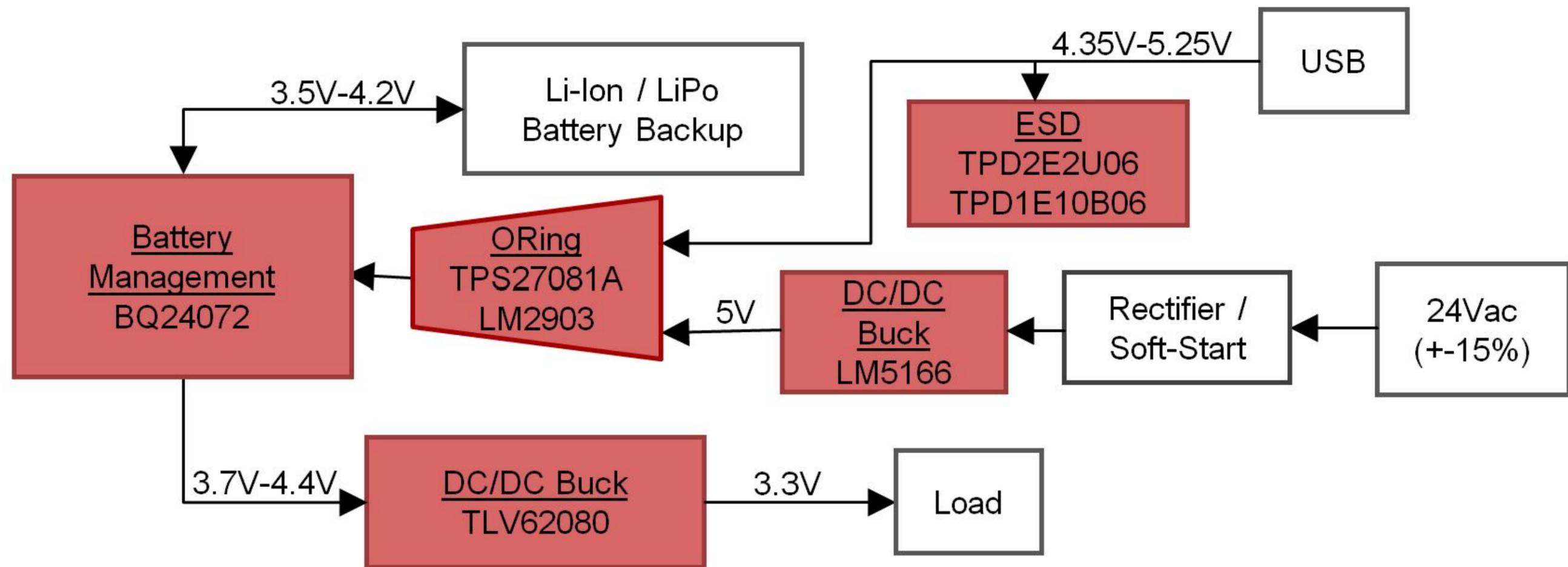


Revision History				
Rev	ECN #	Approved Date	Approved by	Notes
N/A	N/A	N/A	N/A	N/A

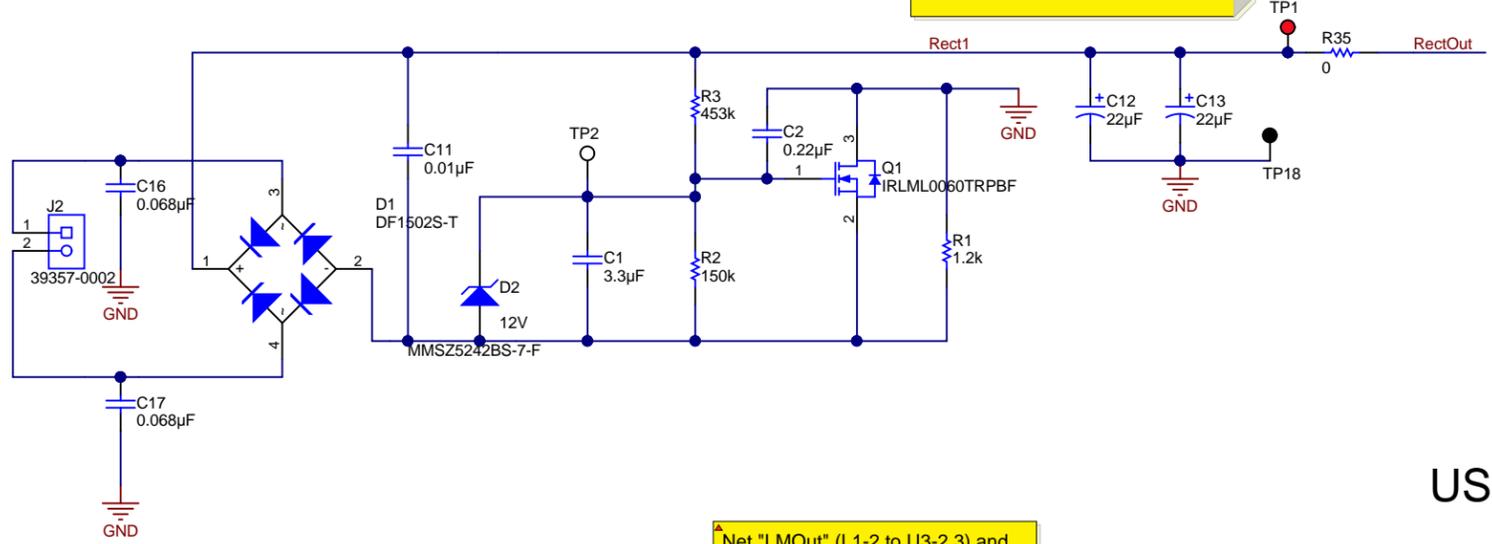


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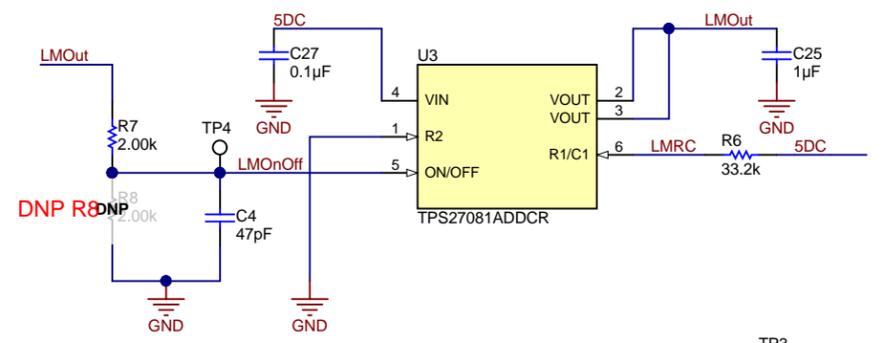
Orderable: N/A	Designed for: Public Release	Mod. Date: 11/30/2016	 http://www.ti.com © Texas Instruments 2016
TID #: 01358	Project Title: 24Vac Power Stage for Smart Thermostat		
Number: TIDA-01358	Rev: A	Sheet Title:	
SVN Rev: Version control disabled	Assembly Variant: 001	Sheet: 1 of 3	
Drawn By:	File: 24Vac to 3V3_CoverSheet.SchDoc	Size: B	
Engineer: Cassidy Aarstad	Contact: http://www.ti.com/support		

Rectification / Soft-Start

Net "RectOUT" (R35-2 to U2-2) and Net "Rect1" (D1-1 to R35-1) carry up to 100mA Max



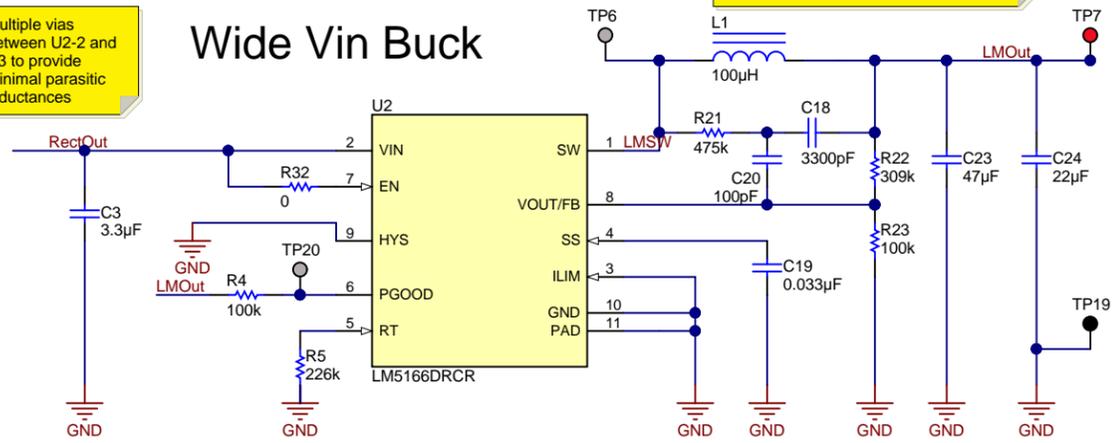
OR-ing



Wide Vin Buck

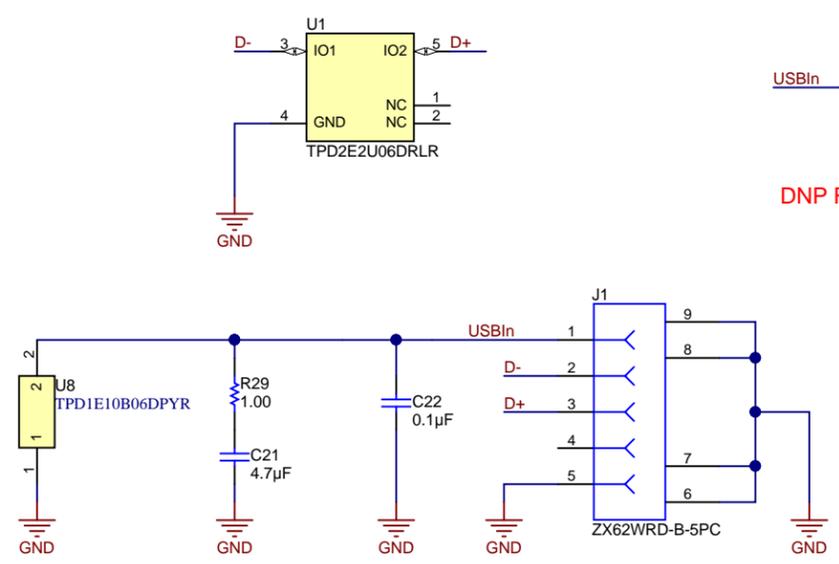
Multiple vias between U2-2 and C3 to provide minimal parasitic inductances

Net "LMOOut" (L1-2 to U3-2,3) and Net "LMSW" (U2-1 to L1-1) Carry up to 500mA Max



Use GND plane in middle layer as noise shield and heat dissipation path. Pin U2-8 should be routed away from LMSW and through layer on other side of Shielding layer.

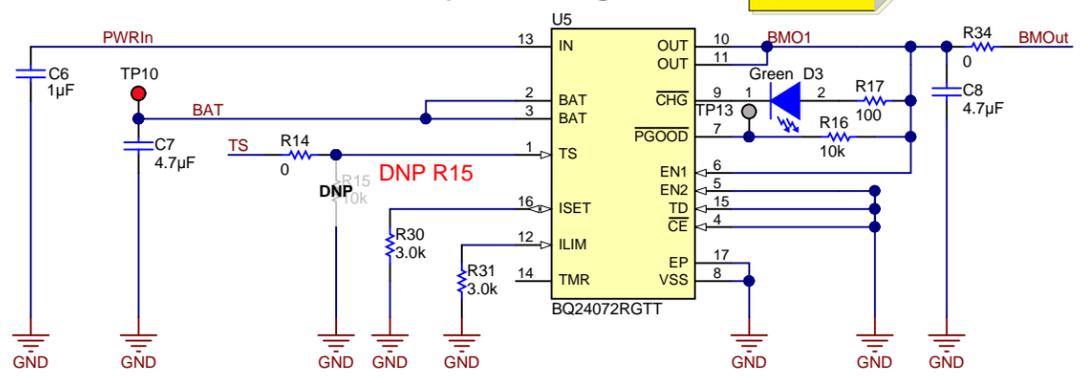
USB / ESD



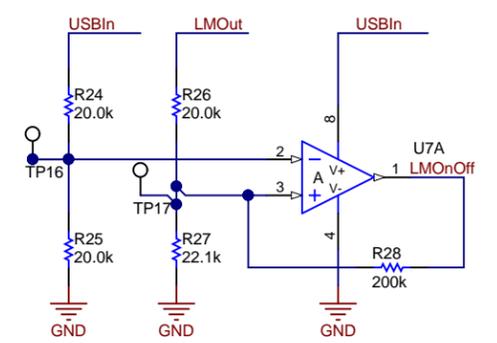
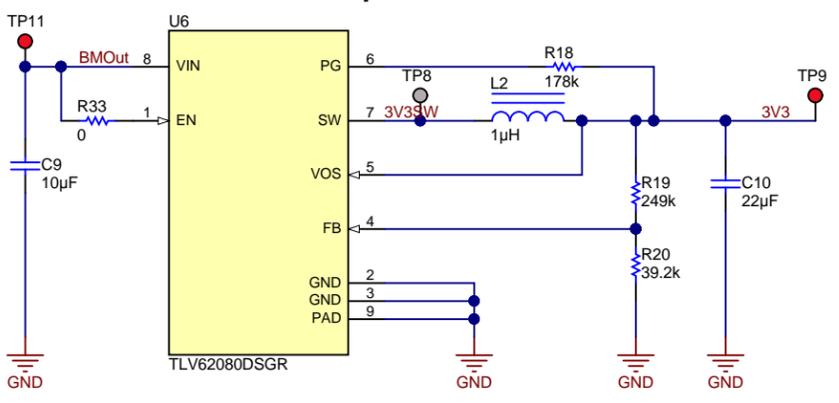
Nets "BAT", "BMO1", "BMOOut", "3V3SW", and "3V3" carry up to 1A Max

Battery Management

D3 Carries up to 20mA Max



3V3 Output Buck



H1 NY PMS 440 0025 PH
 H2 NY PMS 440 0025 PH
 H3 NY PMS 440 0025 PH
 H4 NY PMS 440 0025 PH

H5 1902C
 H6 1902C
 H7 1902C
 H8 1902C

DNP FID1
 DNP FID2
 DNP FID3
 DNP FID4
 DNP FID5
 DNP FID6

PCB Number: TIDA-01358
 PCB Rev: A

PCB LOGO
 Texas Instruments
 PCB LOGO
 Pb-Free Symbol
 PCB LOGO
 FCC disclaimer

Variant/Label Table

Variant	Label Text
001	ChangeMe!
002	ChangeMe!

LBL1
 PCB Label
 Size: 0.65" x 0.20"

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.

Orderable: N/A	Designed for: Public Release	Mod. Date: 10/26/2016
TID #: 01358	Project Title: 24Vac Power Stage for Smart Thermostat	
Number: TIDA-01358	Rev: A	Sheet: 3 of 3
SVN Rev: Version control disabled	Assembly Variant: 001	Sheet: 3 of 3
Drawn By: Cassidy Aarstad	File: 24Vac to 3V3_EVM_Hardware.SchDoc	Size: B
Engineer: Cassidy Aarstad	Contact: http://www.ti.com/support	

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