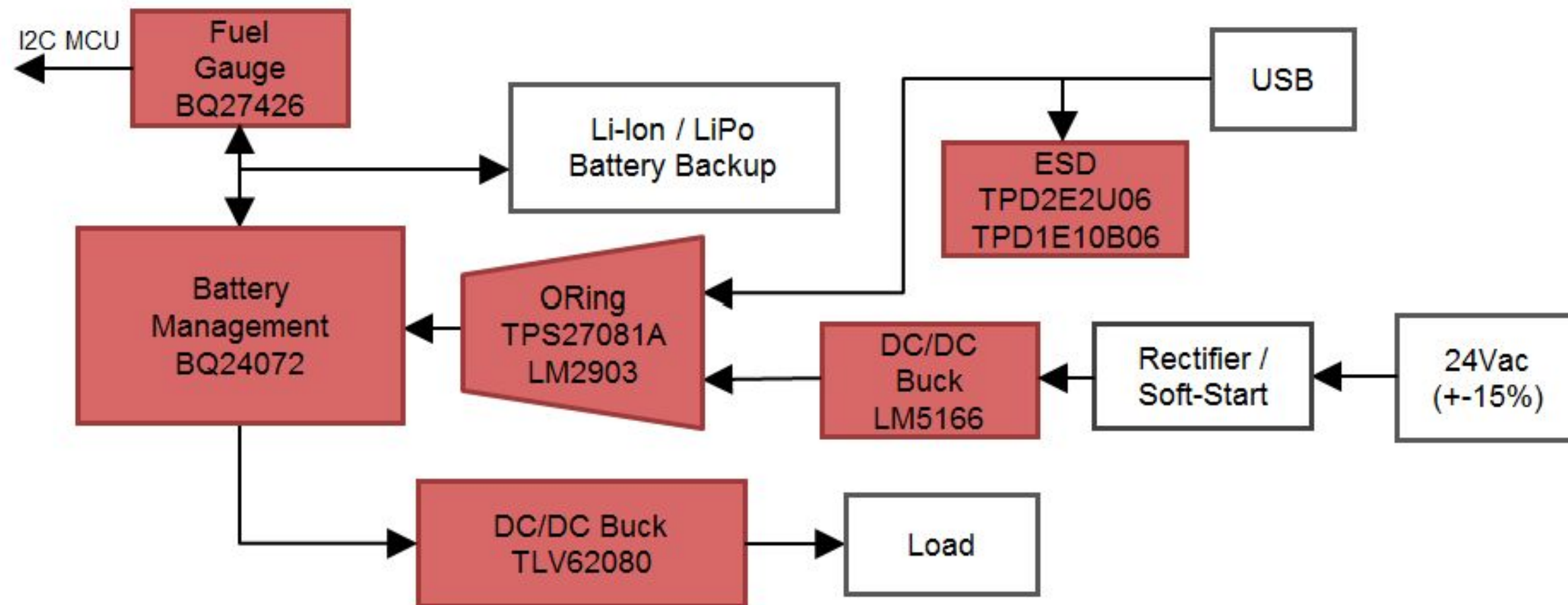


Revision History				
Rev	ECN #	Approved Date	Approved by	Notes
N/A	N/A	N/A	N/A	N/A

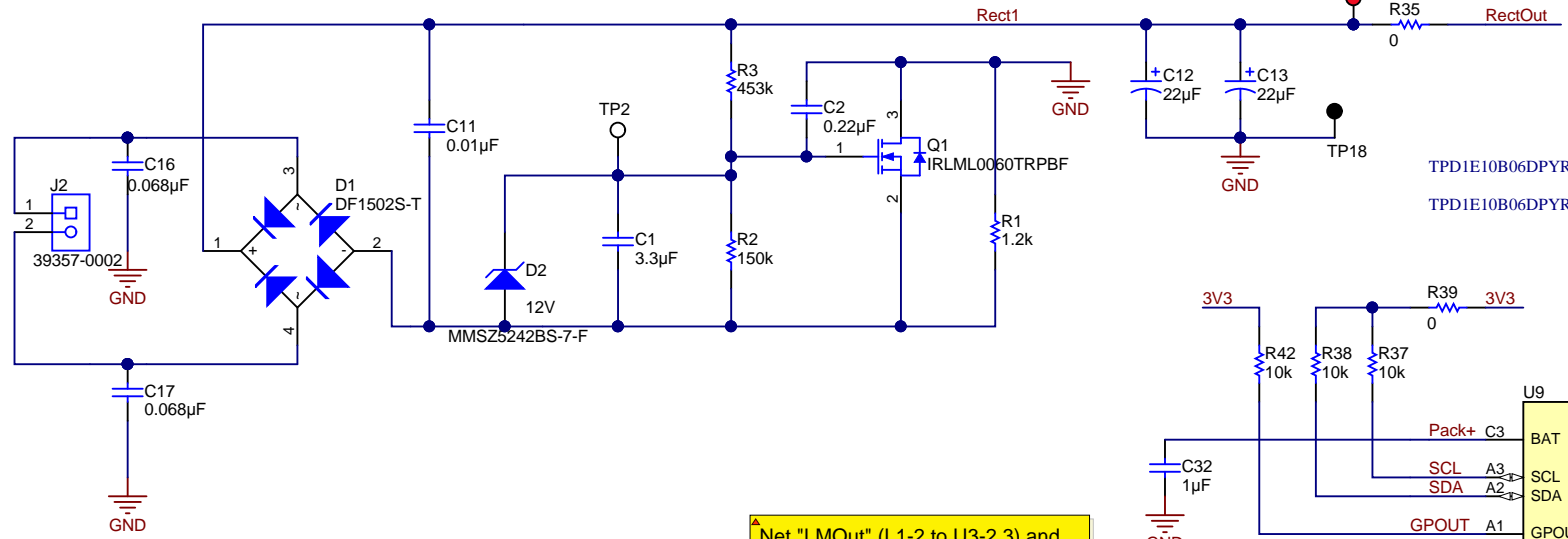


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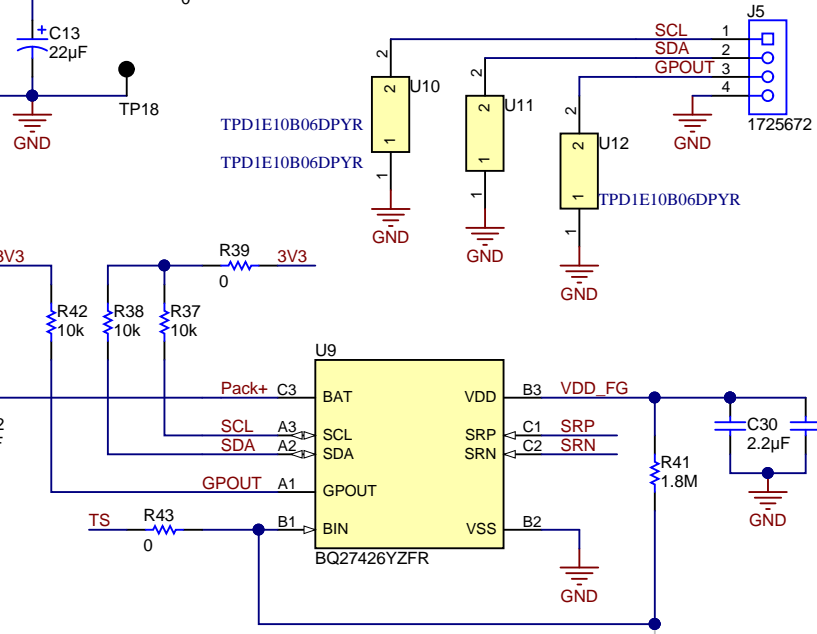
Orderable: N/A	Designed for: Public Release	Mod. Date: 2/21/2017	 TEXAS INSTRUMENTS <a href="http://www.ti.com">http://www.ti.com</a> © Texas Instruments 2016
TID #: 01395	Project Title: 24Vac Power Stage for Smart Thermostat	Sheet Title: Cover Sheet	
Number: TIDA-01395	Rev: A	Assembly Variant: 001	Sheet: 1 of 3
SVN Rev: Version control disabled	Drawn By: Cassidy Aarstad	File: 24Vac to 3V3_CoverSheet.SchDoc	Size: B
Engineer: Cassidy Aarstad	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>		

# Rectification / Soft-Start

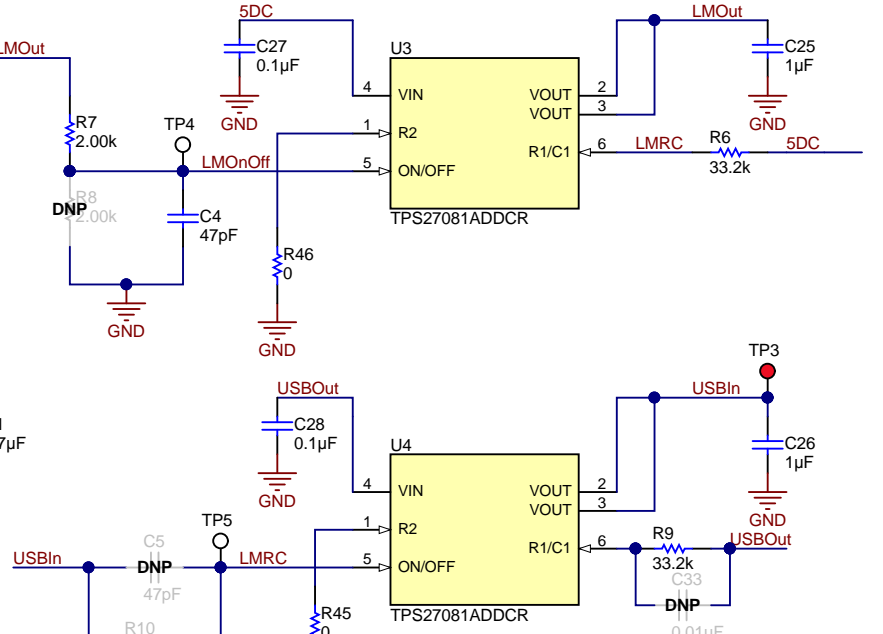
Net "RectOUT" (R35-2 to U2-2) and Net "Rect1" (D1-1 to R35-1) carry up to 100mA Max



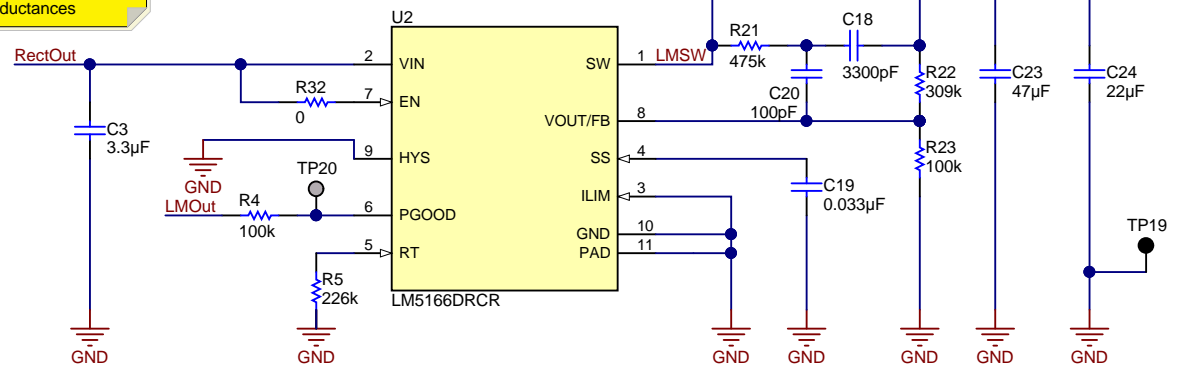
# Fuel Gauge



# OR-ing



# Wide Vin Buck



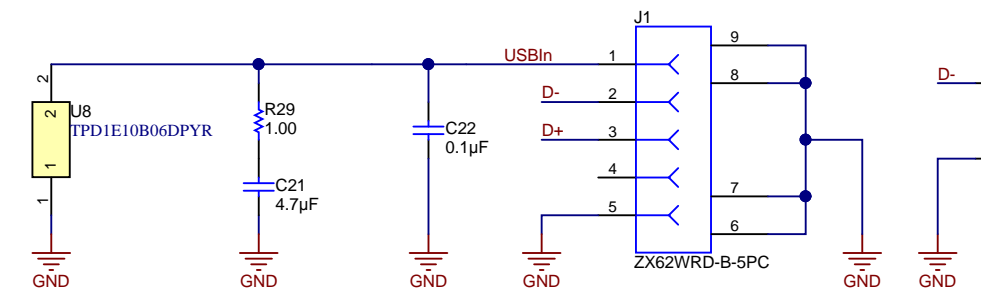
Multiple vias between U2-2 and C3 to provide minimal parasitic inductances

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

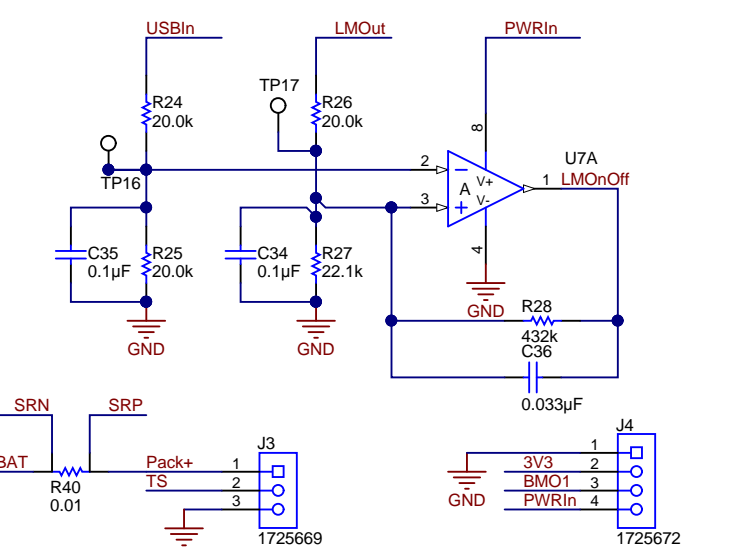
Net "Pack+" should be kelvin connected to J3-1. C30,31,32 should be connected as close to pins as possible. Nets "SRP" and "SRN" from U9 must be kelvin connected to R40

Nets "5DC" (U3-4 to R11-2), "USBIn" (J1-1 to U4-2,3), "USBOut" (U4-4 to R12-2), and "PWRIn" carry up to 500mA Max

# USB / ESD



# OR-ing Comparator

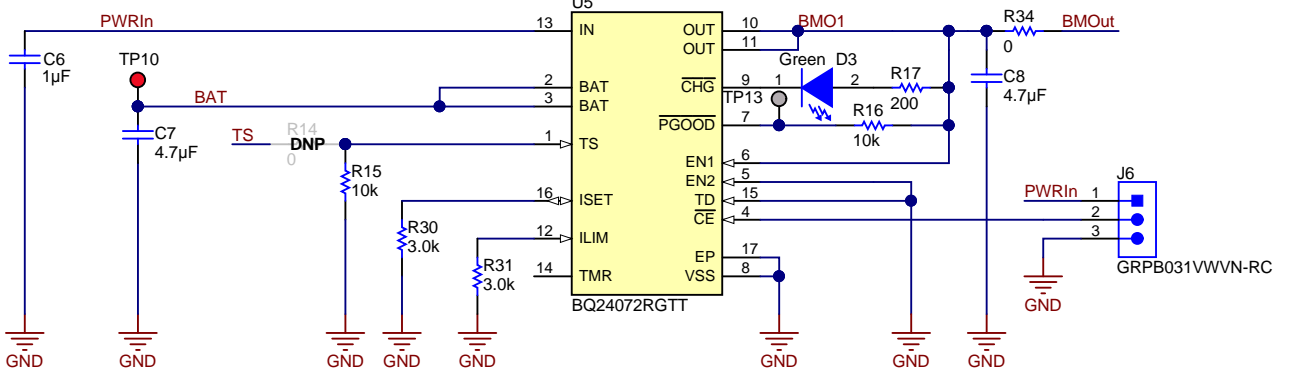


Use GND plane in middle layer as noise shield and heat dissipation path. Pin U2-8 should be routed away from LMSW and through layer on other side of Shielding layer.

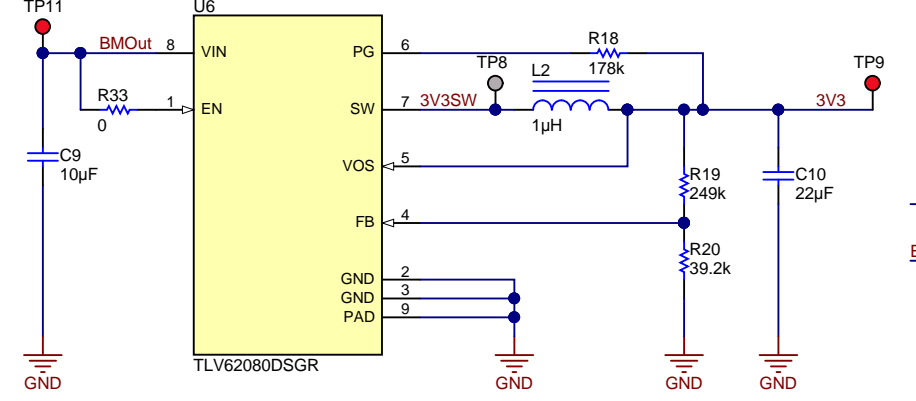
Nets "BAT", "BMO1", "BMOOut", "3V3SW", and "3V3" carry up to 1A Max

# Battery Management

D3 Carries up to 20mA Max



# 3V3 Output Buck



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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-01395  
 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.

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