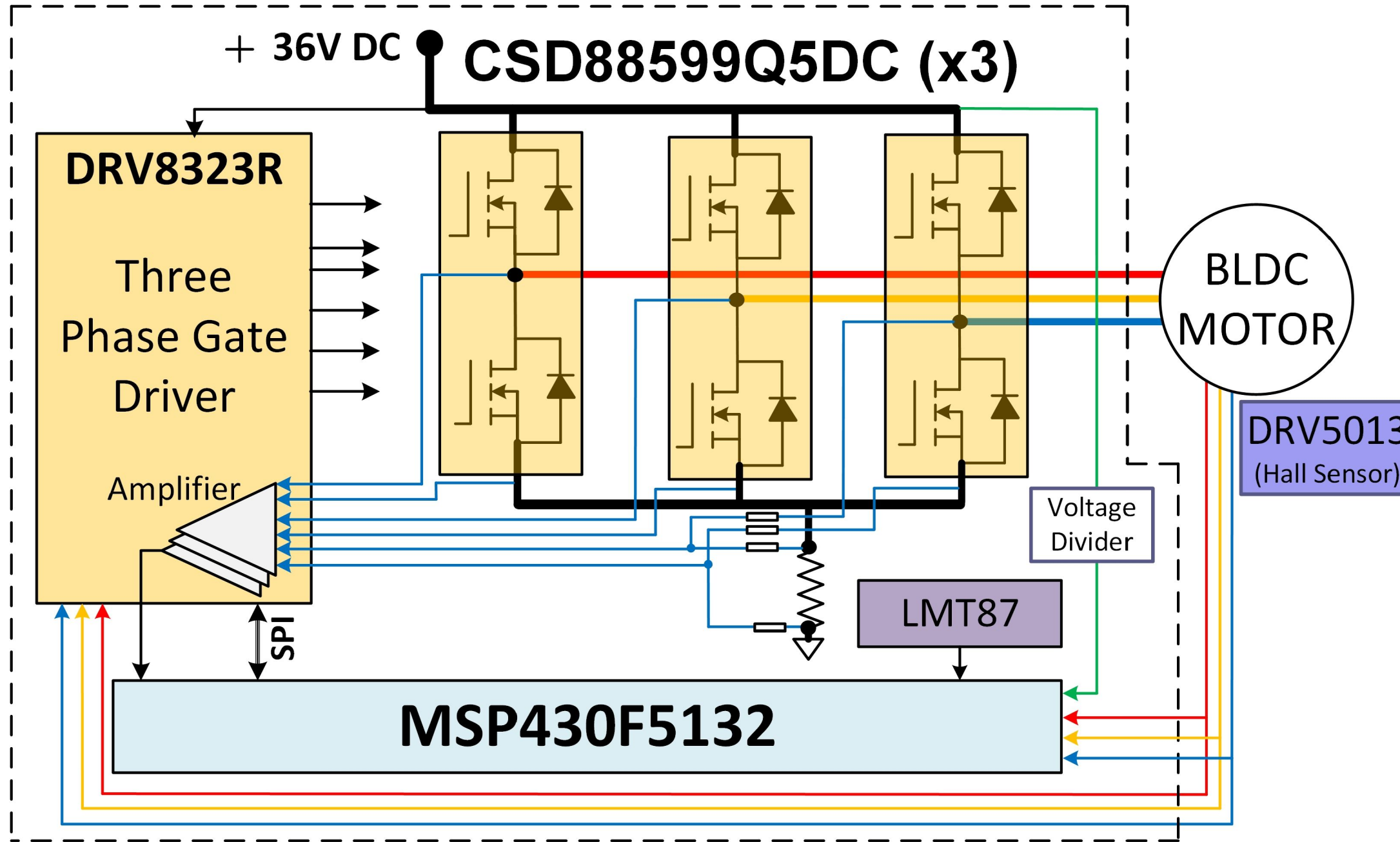


TIDA-01485

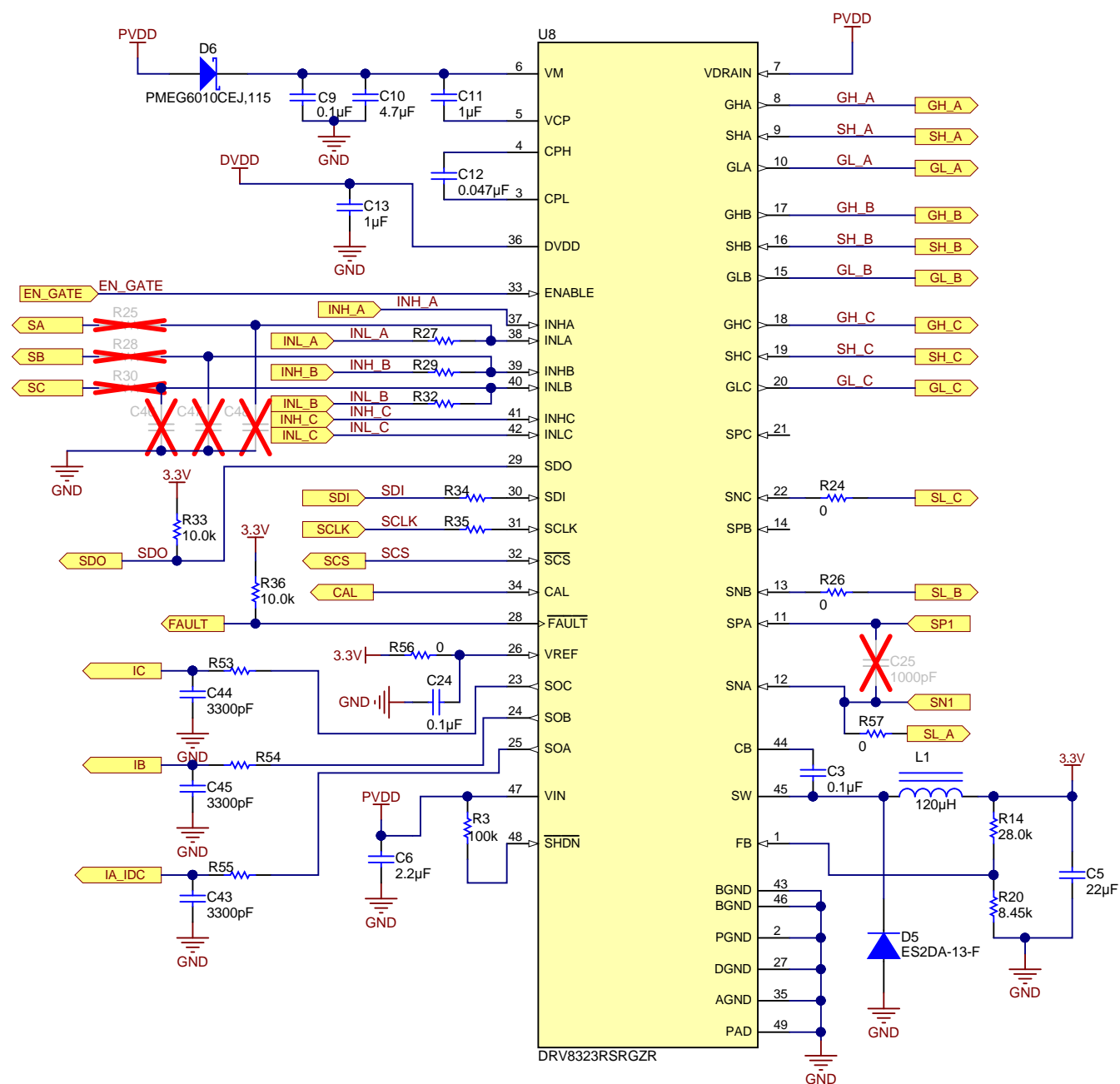


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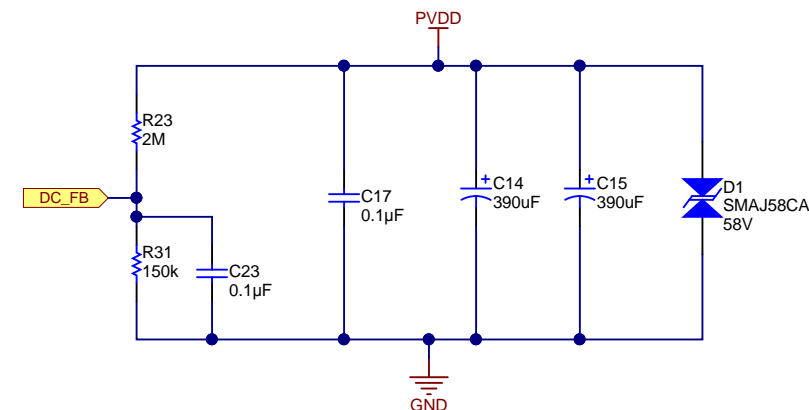
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Orderable: N/A	Designed for: Public Release	Mod. Date: 8/4/2017	TEXAS INSTRUMENTS
TID #: 01485	Project Title: 18V/1kW, power stage for brushless motor	Sheet: 1 of 5	
Number: TIDA-01485	Rev: E2	File: TIDA-01485_CoverSheet.SchDoc	http://www.ti.com
SVN Rev: Version control disabled	Assembly Variant: 001	Size: B	© Texas Instruments 2017
Drawn By: Manu	Engineer: Manu Balakrishnan	Contact: http://www.ti.com/support	

Three Phase gate Driver



Power Supply



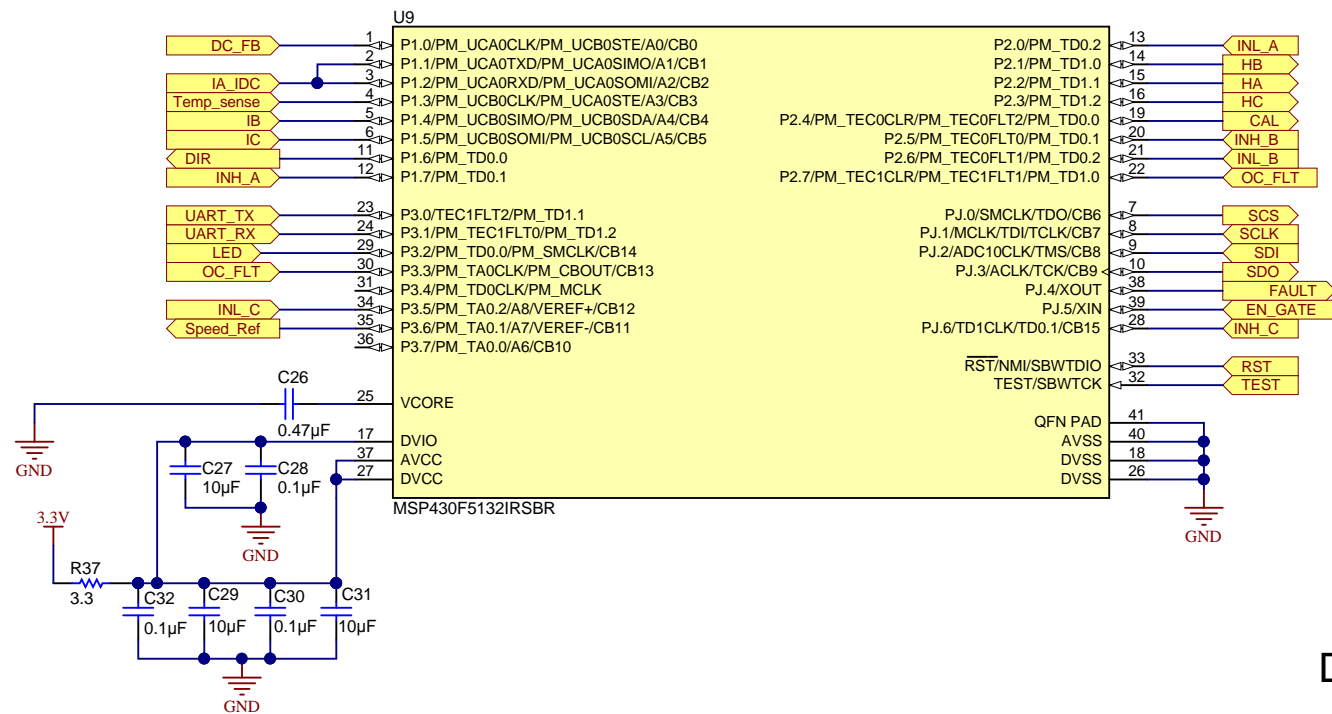
Note: No need to populate C25, if the DRV8323 amplifiers are configured for MOSFET VDS current sensing

Do not populate R24, R26, R57 if the DRV8323 amplifiers are configured for DC bus current sensing using the shunt resistor

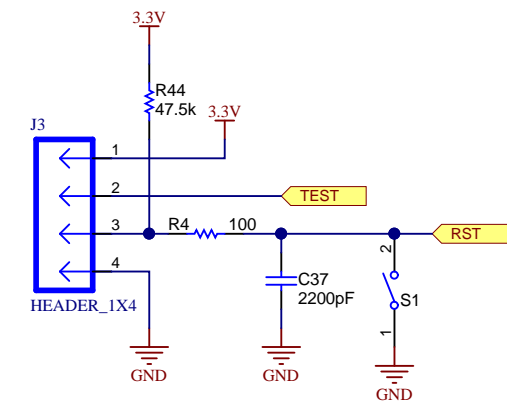
Do not populate R25, R28, R30, C46, C47, C48 if the DRV8323 is configured for independent (6x) PWM control

Do not populate R27, R29, R32 if the DRV8323 is configured for single (1x) PWM control

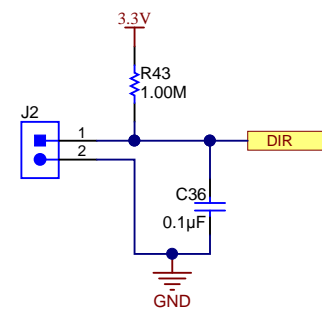
Microcontroller



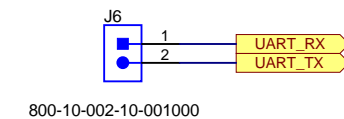
MCU Programming connector



DIRECTION Change

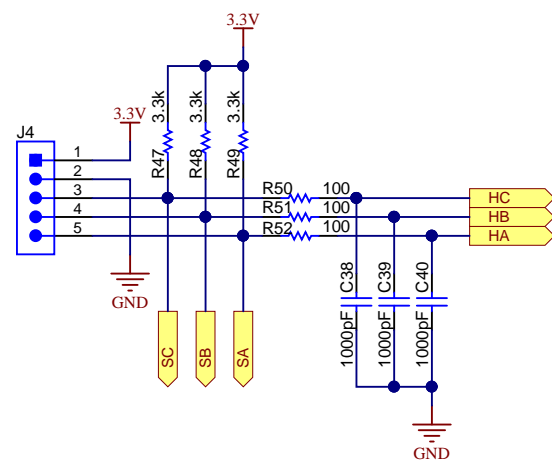


Provision for UART communication

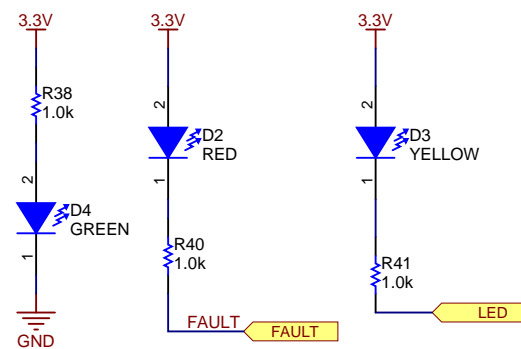


Note: short or open the connector J2 for rotation direction change

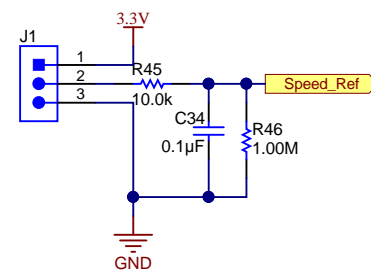
Hall Sensor interface



LED Indication

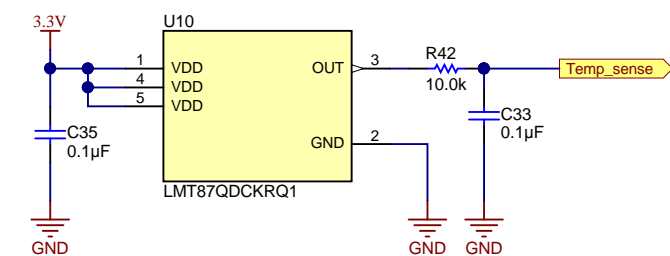


SPEED Reference

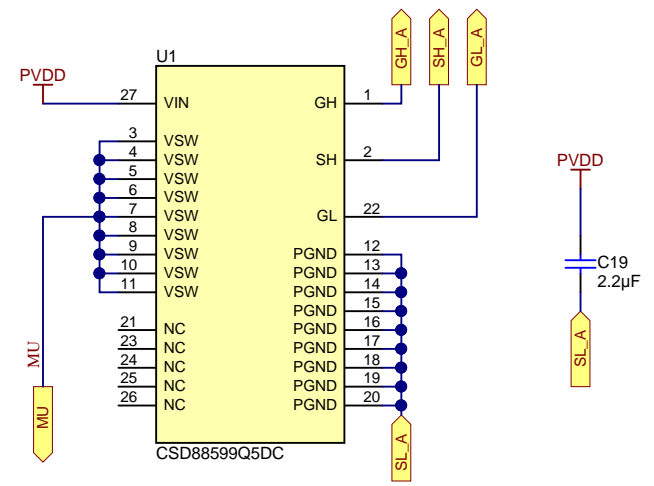


Note: Connect an external 20k POT at J1
Pin No.2 should be the midpoint

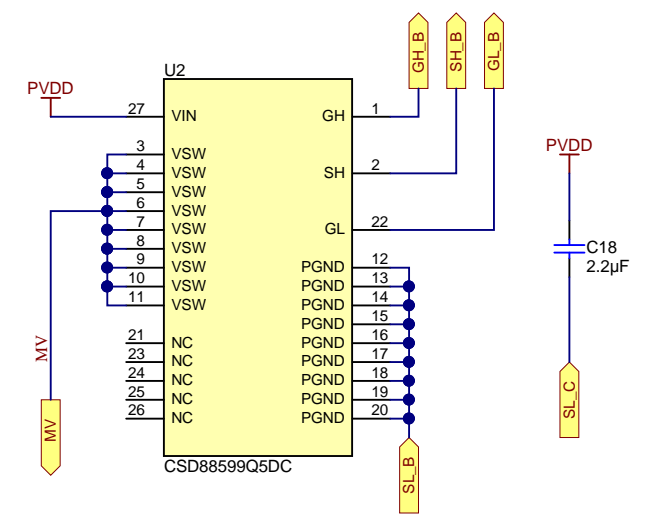
Temperature Sensor



Note: The hall sensor must be connected in proper sequence to match with the winding connections.

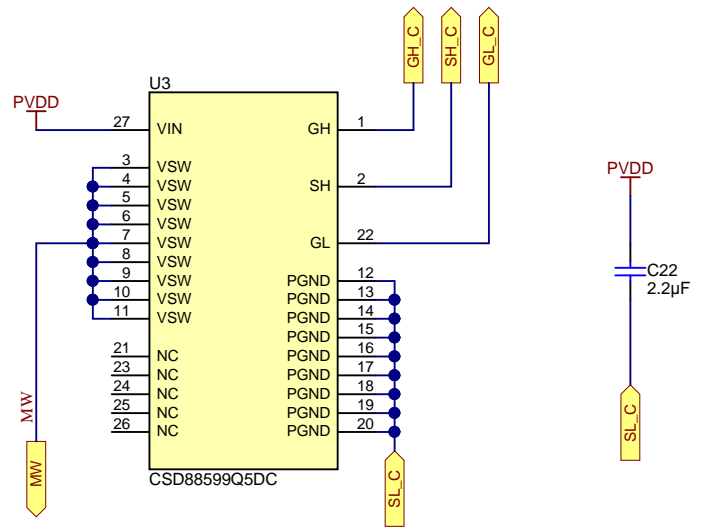


PHASE A



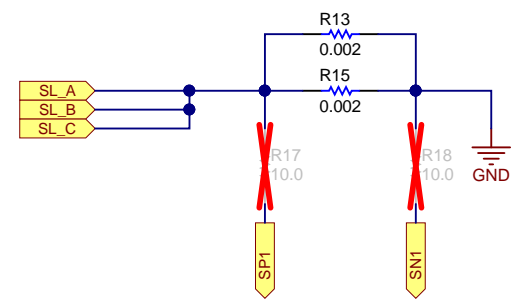
Note: Decaps across each inverter leg

PHASE B



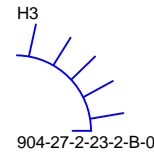
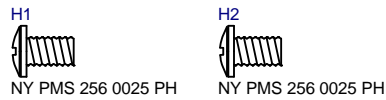
PHASE C

Current Sense Resistors



Note: No need to populate R17,R18, if the DRV8323 amplifiers are configured for MOSFET VDS current sensing

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PCB Number: TIDA-01485
PCB Rev: E2



Label Table	
Variant	Label Text
001	ChangeMe!
002	ChangeMe!

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: 8/4/2017
TID #: 01485	Project Title: 18V/1kW, power stage for brushless motor	
Number: TIDA-01485	Rev: E2	Sheet Title:
SVN Rev: Version control disabled	Assembly Variant: 001	Sheet: 5 of 5
Drawn By: Manu	File: TIDA-01485_Hardware.SchDoc	Size: B
Engineer: Manu Balakrishnan	Contact: http://www.ti.com/support	



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