18V/1kW power stage for brushless motor

Project Title: Designed for:

Public Release

Assembly Variant: 001

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Version control disabled

SVN Rev:

TIDA-01485Number: Rev: E2

TID #: 01485

Orderable: N/A
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

Hall Sensor interface

LED Indication

SPEED Reference

Temperature Sensor

Provision for UART communication

DIRECTION Change

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

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

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

PHASE B

PHASE C

Note: Decaps across each inverter leg

Current Sense Resistors

Note: No need to populate R17, R18, if the DRV8323 amplifiers are configured for MOSFET VDS current sensing
18V/1kW, power stage for brushless motor

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PCB Number: TIDA-01485
PCB Rev: E2

Label Table

<table>
<thead>
<tr>
<th>Variant</th>
<th>Label Text</th>
</tr>
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<tbody>
<tr>
<td>001</td>
<td>ChangeMe!</td>
</tr>
<tr>
<td>002</td>
<td>ChangeMe!</td>
</tr>
</tbody>
</table>

Assembly Note

TZA: These assemblies are ESD sensitive, ESD precautions shall be observed.
TZB: These assemblies must be clean and free from flux and all contaminants. Use of no clean flux is not acceptable.
TZC: These assemblies must comply with workmanship standards IPC-A-610 Class 2, unless otherwise specified.

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