



# EV6522-U-00A

## 35V, 3.2A H-Bridge Motor Driver Evaluation Board

### DESCRIPTION

The EV6522-U-00A is an evaluation board for the MP6522, an H-Bridge motor driver.

It operates from a supply voltage of up to 35V and can deliver 2A continuous current, 3.2A peak current. The input control signals for the MP6522 can be set by SW1 or applied through the connector CN1 on the board.

### ELECTRICAL SPECIFICATION

Parameter	Symbol	Value	Units
Input Voltage	$V_{IN}$	5.4 - 35	V
Output Current	$I_{OUT}$	2	A

### FEATURES

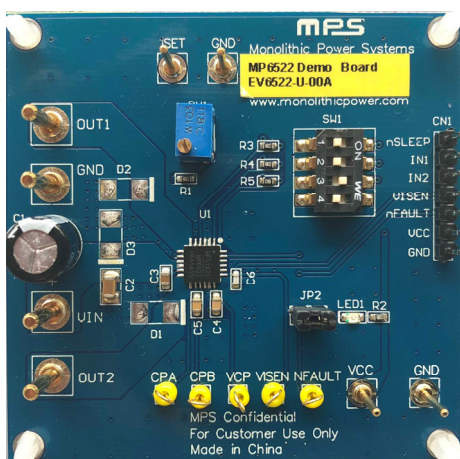
- Wide 5.4V to 35V Input Voltage Range
- Up to 3.2A Peak Output Current
- Internal Current Sense Output
- 3.3V and 5V Compatible Logic Supply
- OCP, OVP, OTP
- Fault Indication Output

### APPLICATIONS

- Solenoid Drivers
- DC Brush Motor Drive

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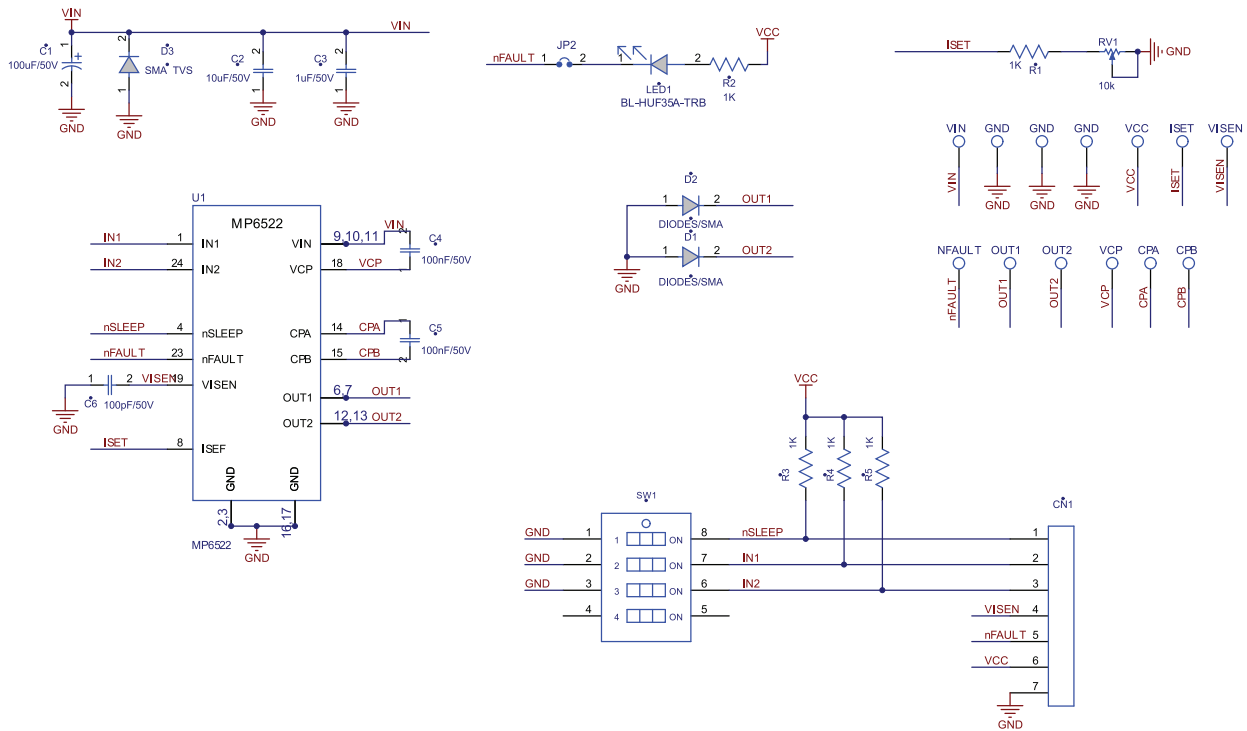
## EV6522-U-00A EVALUATION BOARD



(L × W × H) 6.35cm x 6.35cm x 1cm

Board Number	MPS IC Number
EV6522-U-00A	MP6522GU

## EVALUATION BOARD SCHEMATIC



## EV6522-U-00A BILL OF MATERIALS

Qty	RefDes	Value	Description	Package	Manufacturer	Manufacturer P/N
1	C1	100μF	Electrolytic Cap. 50V	DIP	JiangHai	CD287-50V100
1	C2	10μF	Ceramic Cap. 50V, X5R	1206	Murata	GRM31CR61H106KA12L
1	C3	1μF	Ceramic Cap. 50V, X7R	0805	Wurth	885012207103
2	C4, C5	100nF	Ceramic Cap. 50V, X7R	0805	Murata	GRM21BR71H104KA01L
1	C6	100pF	Ceramic Cap. 50V, C0G	0603	Murata	GRM1885C1H101JA01D
5	R1,R2,R3, R4,R5	1k	Film Resistor. 1%	0603	Yageo	RC0603FR-071KL
1	RV1	10k	Adjustable Resistor	DIP		3296W-1-103F
1	LED1		LED. 红光	0805	佰鸿	2012SURC-11
1	JP2		2PIN. 2.54MM			
1	JP2		2.54MM Short Jumper			
1	SW1		4-Bits Button	SMD	Wurth	418121270804
1	CN1		7PIN. 2.54MM			
1	U1		H-Bridge Motor Driver	QFN24 (5x5mm)	MPS	MP6522GU
4	OUT1, OUT2, VIN, GND		2.0 公针			
4	VCC, ISET, GND, GND		1.0 公针			
5	CPA, CPB, VCP, VISEN, NFAULT		Test Points			
3	D1, D2, D3	NS				

## PRINTED CIRCUIT BOARD LAYOUT

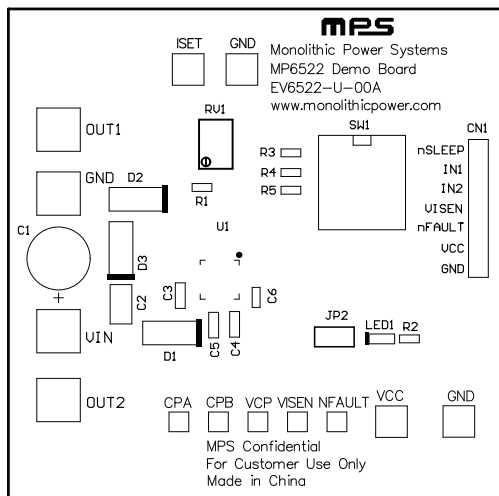


Figure 1: Top Silkscreen Layer

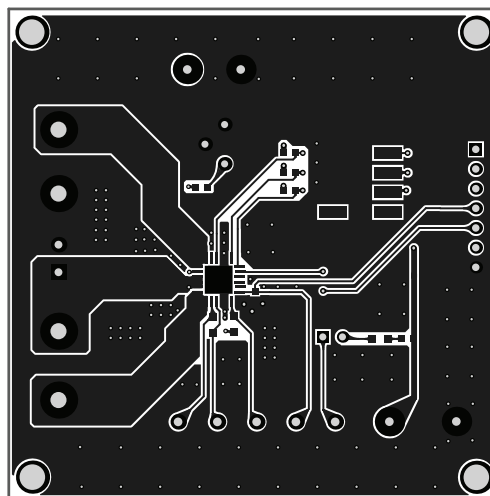


Figure 2: Top Layer

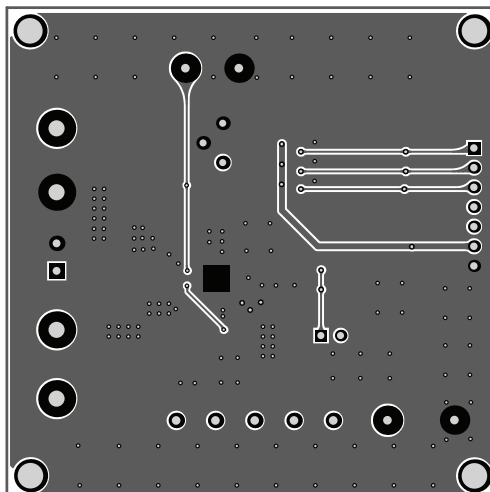


Figure 3: Bottom Layer

## QUICK START GUIDE

1. Attach the input voltage ( $5.4V \leq V_{IN} \leq 35V$ ) and input ground to the VIN and GND connectors respectively.
2. Input control and logic signal can be set either through the CN1 connector by the external MCU or through the SW1 by manual action. Manual action requires an external 3.3V or 5V VCC voltage as a pull-up power supply. The logic truth table is shown in below:

IN1	IN2	OUT1	OUT2	Function
0	0	Z	Z	<i>Coast</i>
0	1	L	H	<i>Forward</i>
1	0	H	L	<i>Reverse</i>
1	1	L	L	<i>Brake (low)</i>

3. The VISEN output voltage scaling is set by the RV1 adjustable resistor.

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