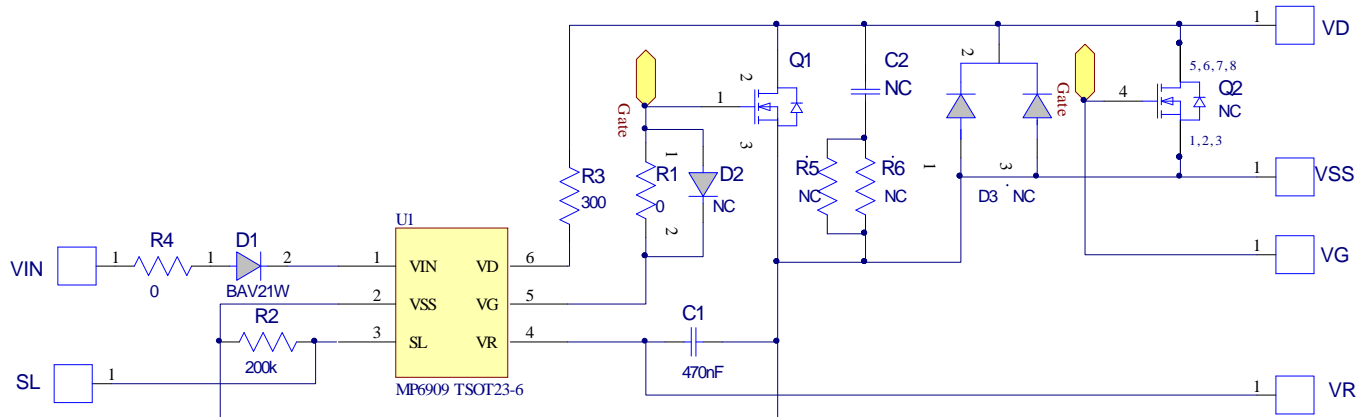




## EVALUATION BOARD SCHEMATIC



## BILL OF MATERIALS

Qty	RefDes	Value	Description	Package	Manufacturer	Manufacturer P/N
1	C1	470nF	Ceramic Capacitor;25V;X7R	0805	TDK	C2012X7R1E474K
0	C2	NC	Snubber Capacitor	0805		
2	R1 ,R4	0	Film Resistor;1%	0603	Yageo	RC0603FR-070RL
1	R2	200k	Film Resistor;1%	0603	Yageo	RC0603FR-07200KL
1	R3	300	Film Resistor;1%	0603	Yageo	RC0603FR-07300RL
0	R5,R6	NC	Snubber Resistor	1206		
1	D1	BAV21W	Diode,200V	SOD-123	Diodes	BAV21W-7-F
1	U1	MP6909	Smart Synchronous Rectifier	TSOT23-6	MPS	MP6909GJ-Z
1	Q1	FDPF045N10A	MOSFET;100V,67A	TO220-3	Fairchild	FDPF045N10A
0	D2,D3, Q2,SL	NC				
3	VG,VIN, VR	1mm Connector Pin				
2	VD,VSS	2mm Connector Pin				

### PRINTED CIRCUIT BOARD LAYOUT

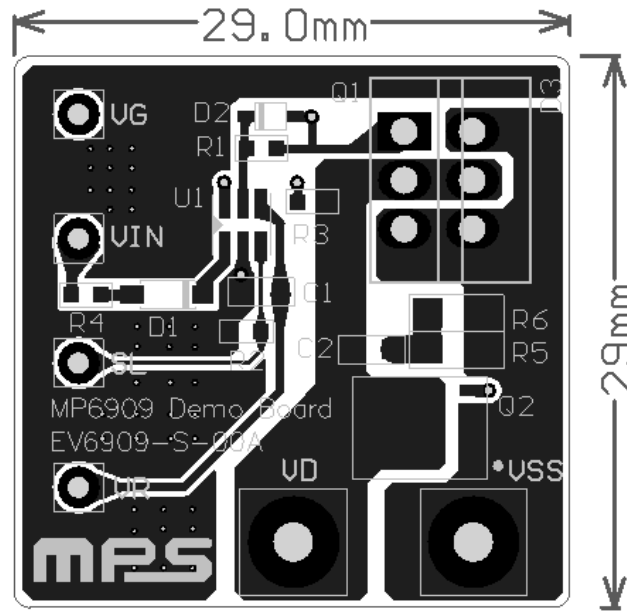


Figure 1: Top Layer

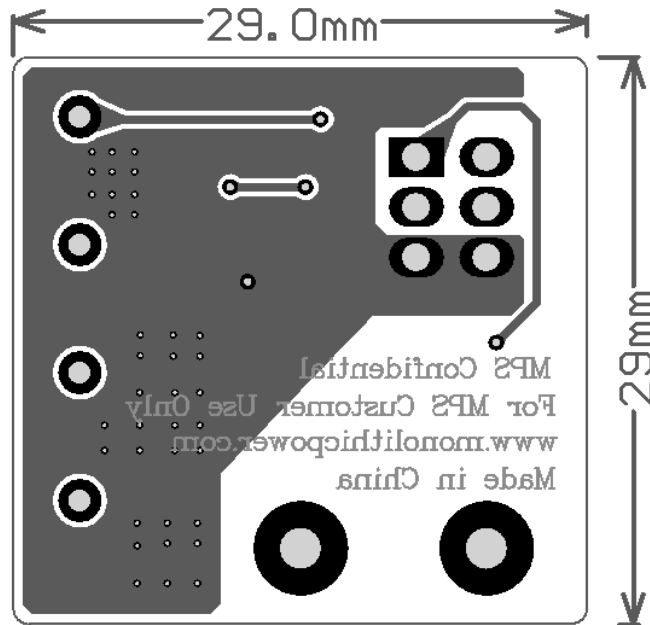


Figure 2: Bottom Layer

## QUICK START GUIDE

1. Connect the VSS and VD pin into the flyback circuit to replace the freewheel diode.
2. Connect VIN to a position which can supply a direct voltage (5V to 40V).
3. Turn the power supply on. The IC will start up and work as a freewheel diode.

**NOTICE:** The information in this document is subject to change without notice. Users should warrant and guarantee that third party Intellectual Property rights are not infringed upon when integrating MPS products into any application. MPS will not assume any legal responsibility for any said applications.