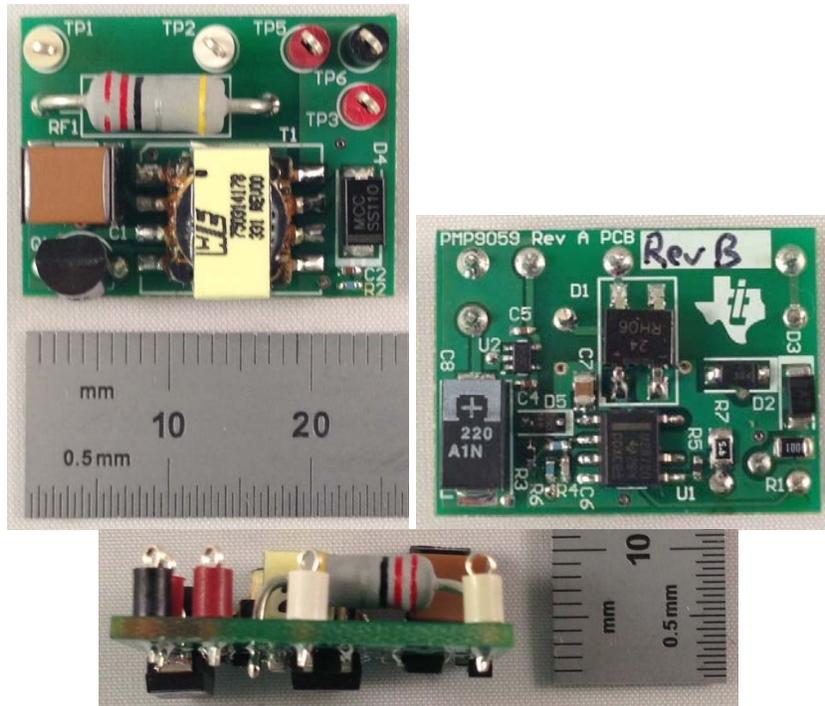


1 Photos

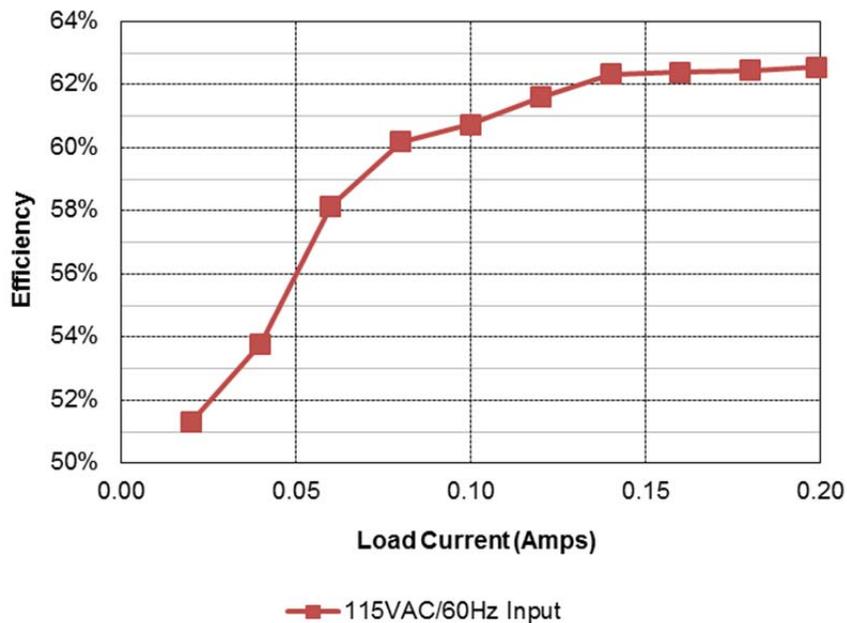
The photographs below show the PMP9059 Rev B prototype assembly. This circuit was built on a PMP9059 Rev A PCB.



2 Standby Power

With no load attached to the output of the supply, the unit draws 16mW of input power with an 115VAC/60Hz input.

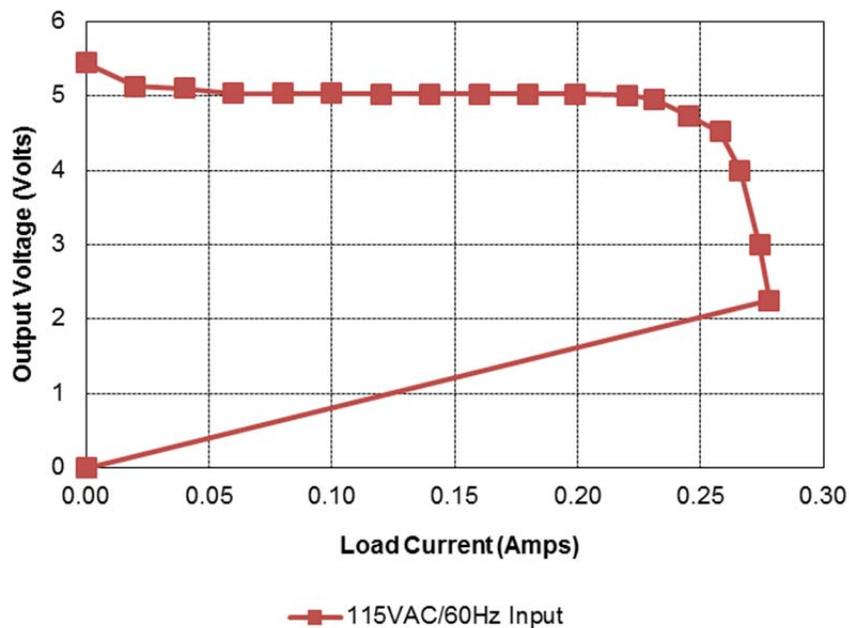
3 Efficiency



115VAC/60Hz								
I _{out}	V _{out}	V _{in}	I _{in}	P _{in}	PF	P _{out}	Losses	Efficiency
0.000	5.45	115.0	0.0007	0.016		0.00	0.02	0.0%
0.020	5.13	115.0	0.004	0.20	0.41	0.10	0.10	51.3%
0.040	5.11	115.0	0.007	0.38	0.47	0.20	0.18	53.8%
0.060	5.04	115.0	0.009	0.52	0.50	0.30	0.22	58.2%
0.080	5.04	115.0	0.011	0.67	0.52	0.40	0.27	60.2%
0.100	5.04	115.0	0.013	0.83	0.54	0.50	0.33	60.7%
0.120	5.03	115.0	0.015	0.98	0.55	0.60	0.38	61.6%
0.140	5.03	115.0	0.018	1.13	0.56	0.70	0.43	62.3%
0.160	5.03	115.0	0.020	1.29	0.57	0.80	0.49	62.4%
0.180	5.03	115.0	0.022	1.45	0.58	0.91	0.54	62.4%
0.199	5.03	115.0	0.024	1.60	0.59	1.00	0.60	62.6%

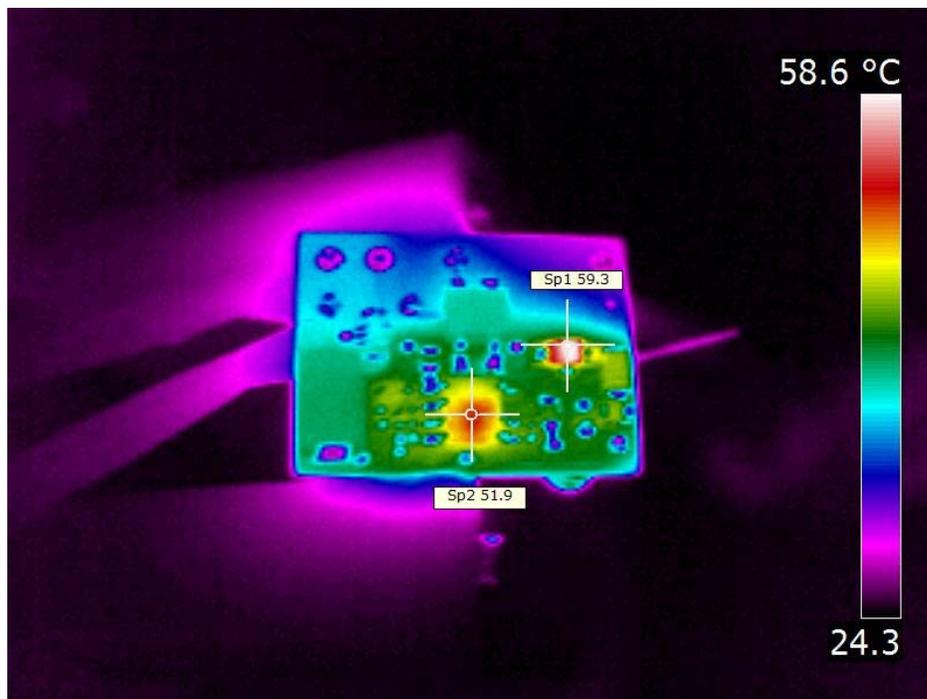
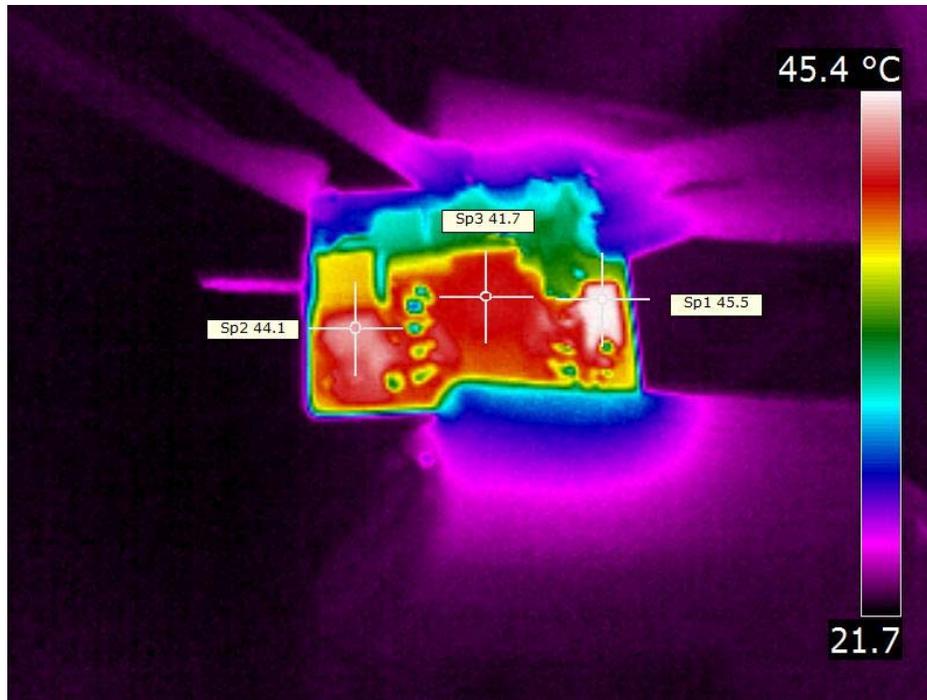
4 Current Limit

A plot of the output voltage versus load current is shown below.



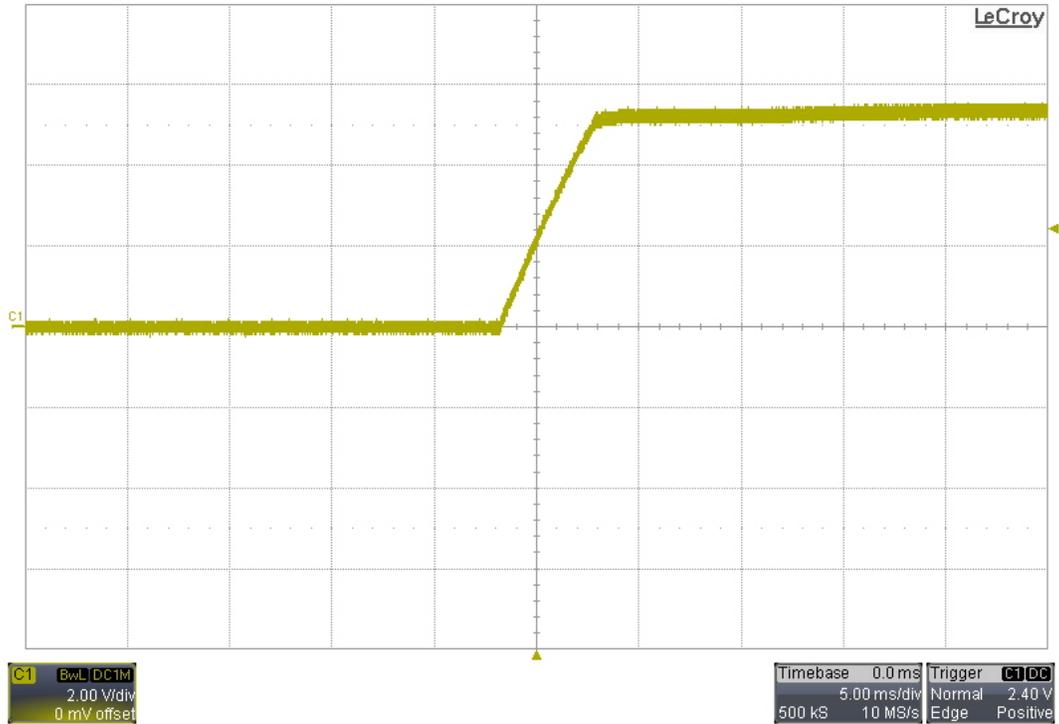
5 Thermal Images

The ambient temperature was 25°C. The 5V output was loaded with 200mA, and the 3.3V output was unloaded. The input was 115VAC/60Hz.

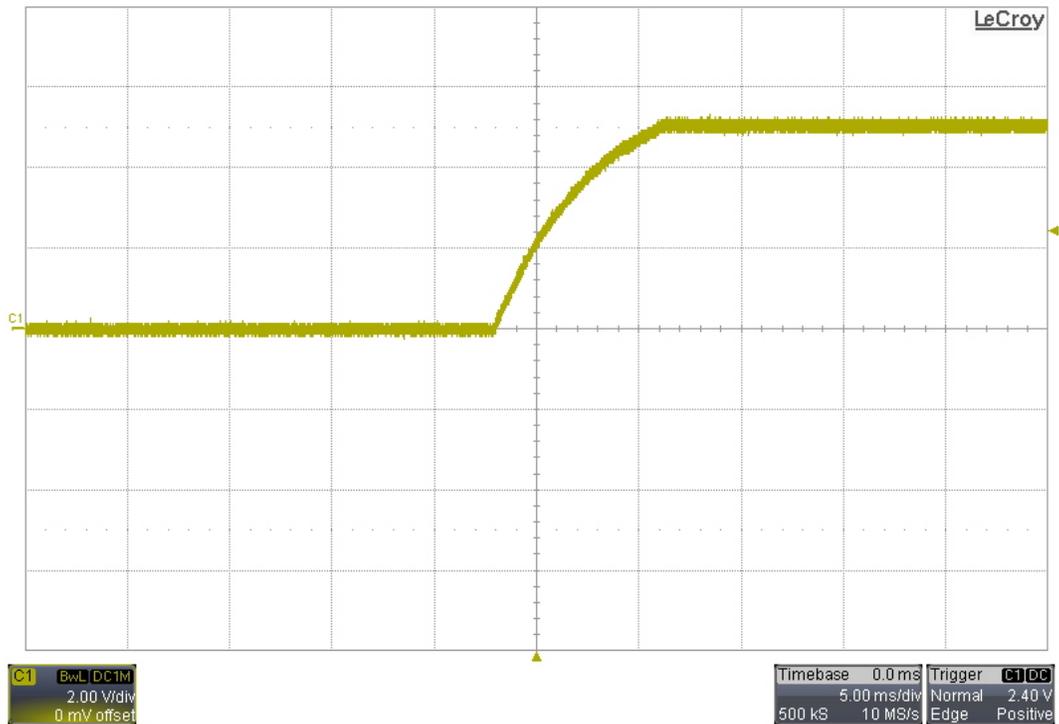


6 Startup – 5V Output Only

6.1 115VAC/60Hz Startup – 0A Load

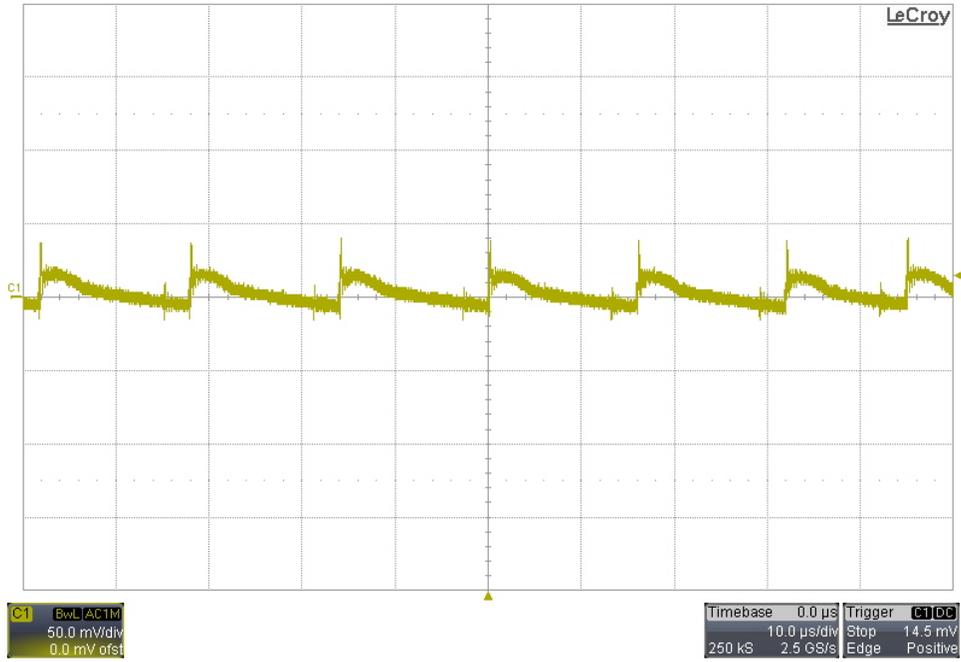


6.2 115VAC/60Hz Startup – 25Ω Load



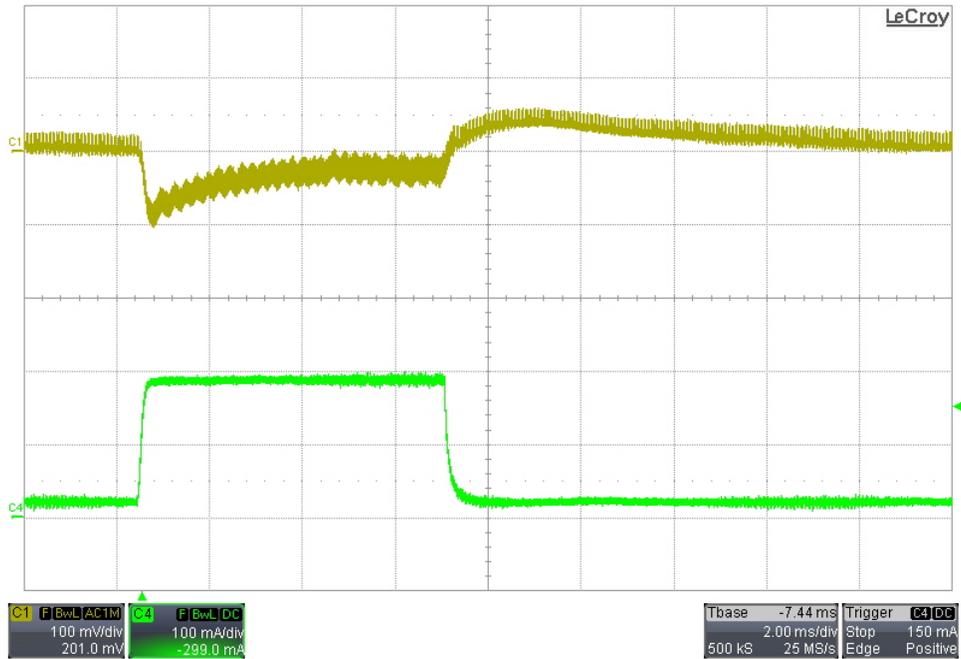
7 Output Ripple Voltage

The output was loaded with 200mA. The input was 115VAC/60Hz.



8 Load Transients

8.1 30mA to 200mA Transient – 115VAC/60Hz Input



9 Switching Waveforms

The images below show the voltage waveforms on the switching devices within the supply. The input was 132VAC/60Hz. The 5V output was loaded 0.2A.

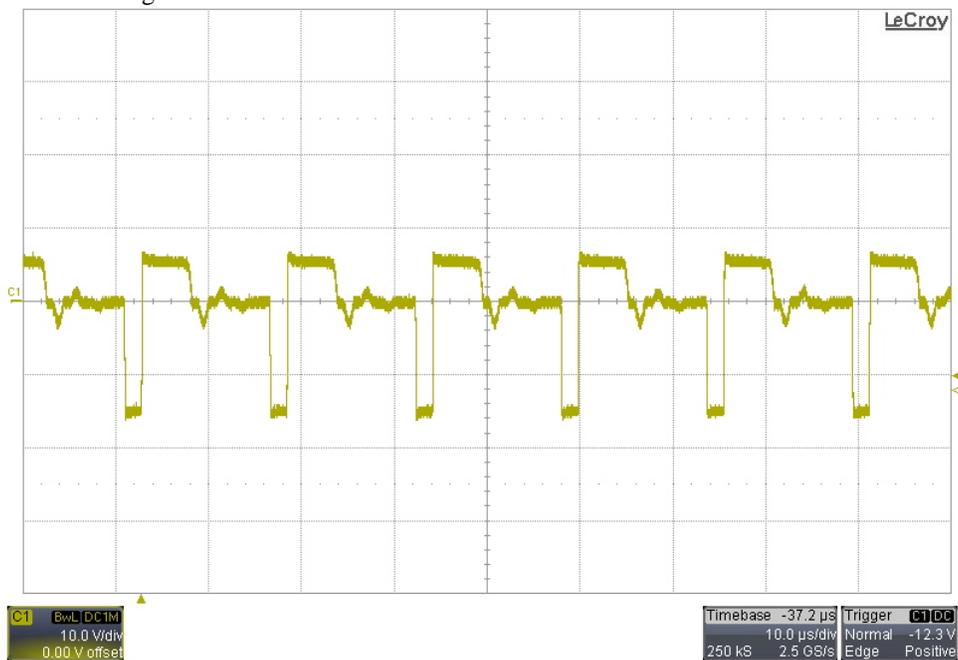
9.1 Primary Waveforms

The image below shows the collector voltage on Q1.



9.2 Secondary Waveforms

The image below shows the voltage on the anode of D4.



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