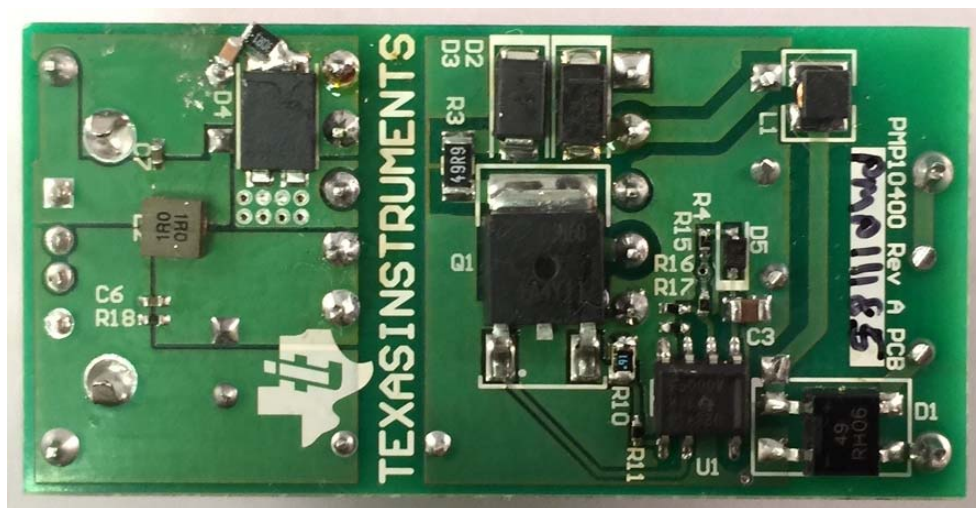
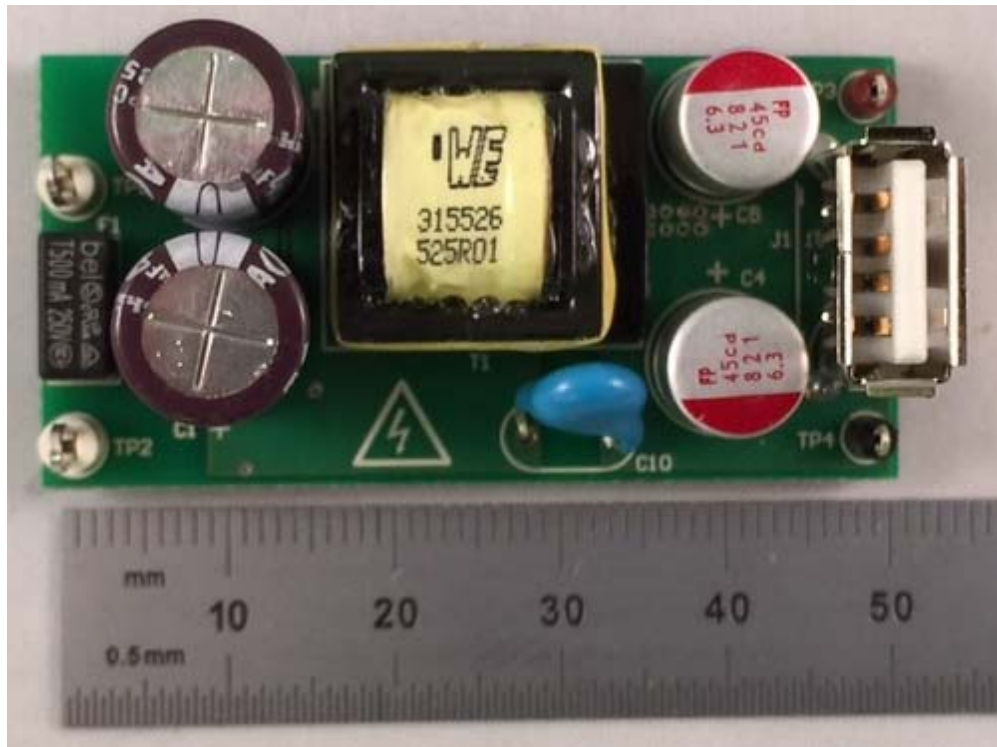


1 Photos

The photographs below show the PMP11185 Rev A prototype assembly. This circuit was built using a PMP10400 Rev A PCB.

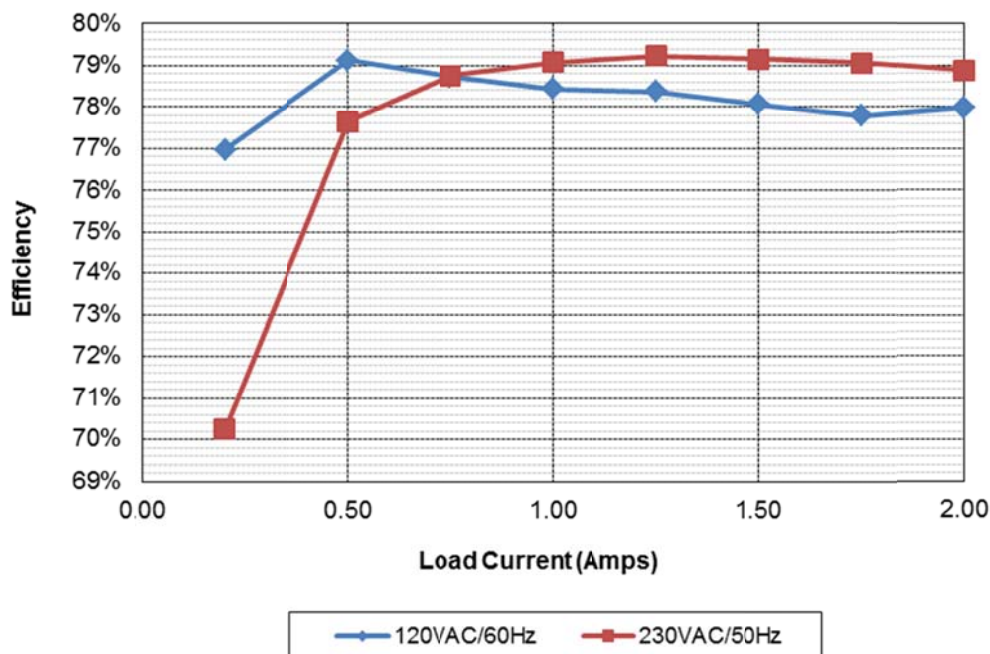


2 Standby Power

Measured with no load.

No Load	Pin AC (W)
115VAC/60Hz	0.014
230VAC/50Hz	0.018

3 Efficiency

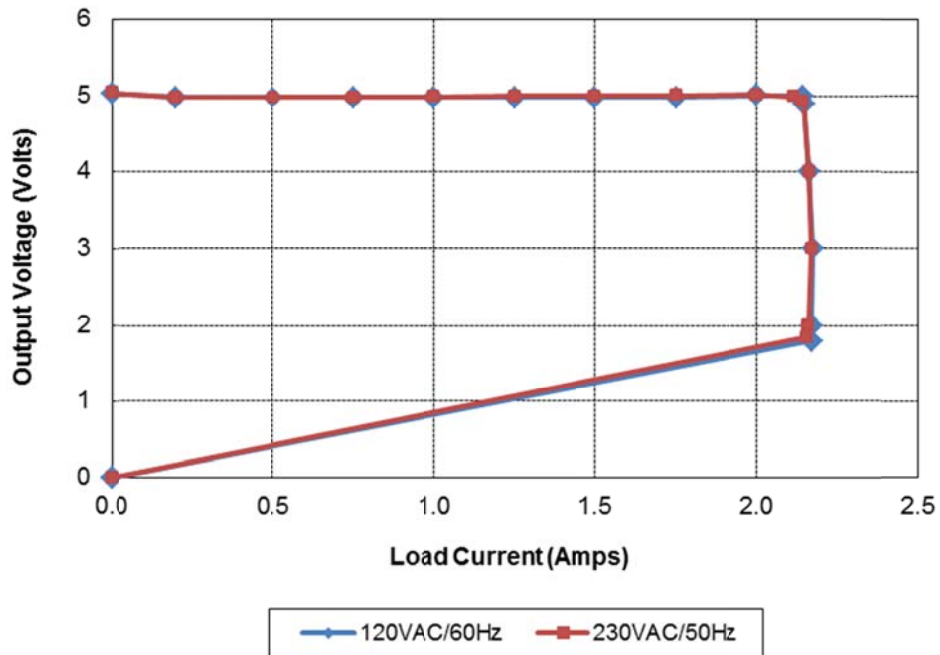


120VAC/60Hz								
Iout	Vout	Vin	Iin	Pin	PF	Pout	Losses	Efficiency
0.000	5.03	120.0	0.00079	0.0142		0.00	0.01	
0.200	4.98	120.0	0.0303	1.294	0.356	1.00	0.30	77.0%
0.500	4.98	119.9	0.0618	3.147	0.425	2.49	0.66	79.1%
0.750	4.98	119.9	0.0855	4.745	0.462	3.74	1.01	78.7%
1.000	4.98	119.9	0.1079	6.350	0.491	4.98	1.37	78.4%
1.250	4.98	119.9	0.1293	7.94	0.512	6.23	1.72	78.4%
1.500	4.98	119.9	0.1505	9.57	0.530	7.47	2.10	78.1%
1.750	4.98	119.9	0.1713	11.21	0.545	8.72	2.49	77.8%
2.000	5.01	119.9	0.1919	12.85	0.558	10.02	2.83	78.0%

230VAC/50Hz								
Iout	Vout	Vin	Iin	Pin	PF	Pout	Losses	Efficiency
0.000	5.04	229.9	0.00067	0.0177		0.00	0.02	
0.199	4.98	229.9	0.0221	1.411	0.277	0.99	0.42	70.2%
0.500	4.98	229.9	0.0430	3.207	0.325	2.49	0.72	77.6%
0.750	4.98	229.9	0.0584	4.743	0.353	3.74	1.01	78.7%
1.000	4.99	229.9	0.0729	6.311	0.377	4.99	1.32	79.1%
1.250	5.00	229.9	0.0867	7.89	0.396	6.25	1.64	79.2%
1.500	5.00	229.9	0.0999	9.48	0.412	7.50	1.98	79.1%
1.750	5.01	229.9	0.1130	11.09	0.427	8.77	2.32	79.1%
2.000	5.02	229.9	0.1258	12.73	0.440	10.04	2.69	78.9%

Vin	Pin	Vout	Iout	Load	Efficiency	Avg. Eff.
120VAC/60Hz	1.29	4.98	0.200	10%	76.97%	
	3.15	4.98	0.500	25%	79.12%	78.40%
	6.35	4.98	1.000	50%	78.43%	
	9.57	4.98	1.500	75%	78.06%	
	12.85	5.01	2.000	100%	77.98%	
230VAC/50Hz	1.41	4.98	0.199	10%	70.24%	
	3.21	4.98	0.500	25%	77.64%	78.68%
	6.31	4.99	1.000	50%	79.07%	
	9.48	5.00	1.500	75%	79.15%	
	12.73	5.02	2.000	100%	78.87%	

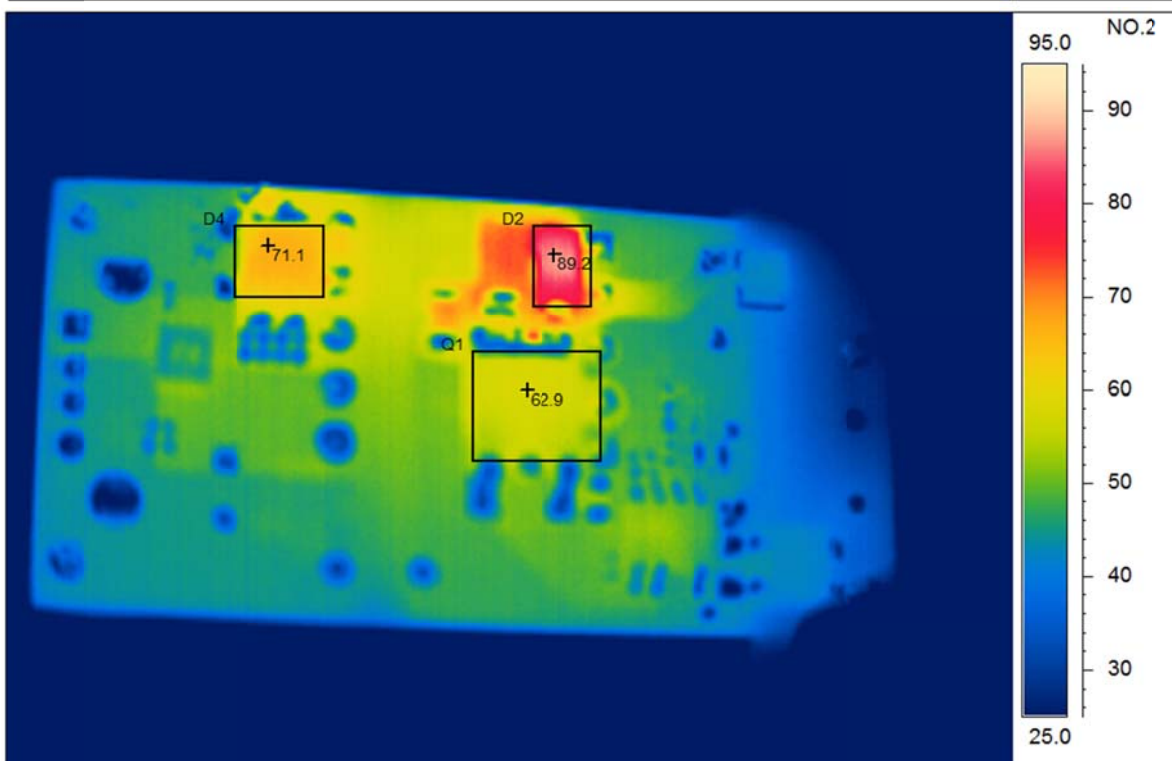
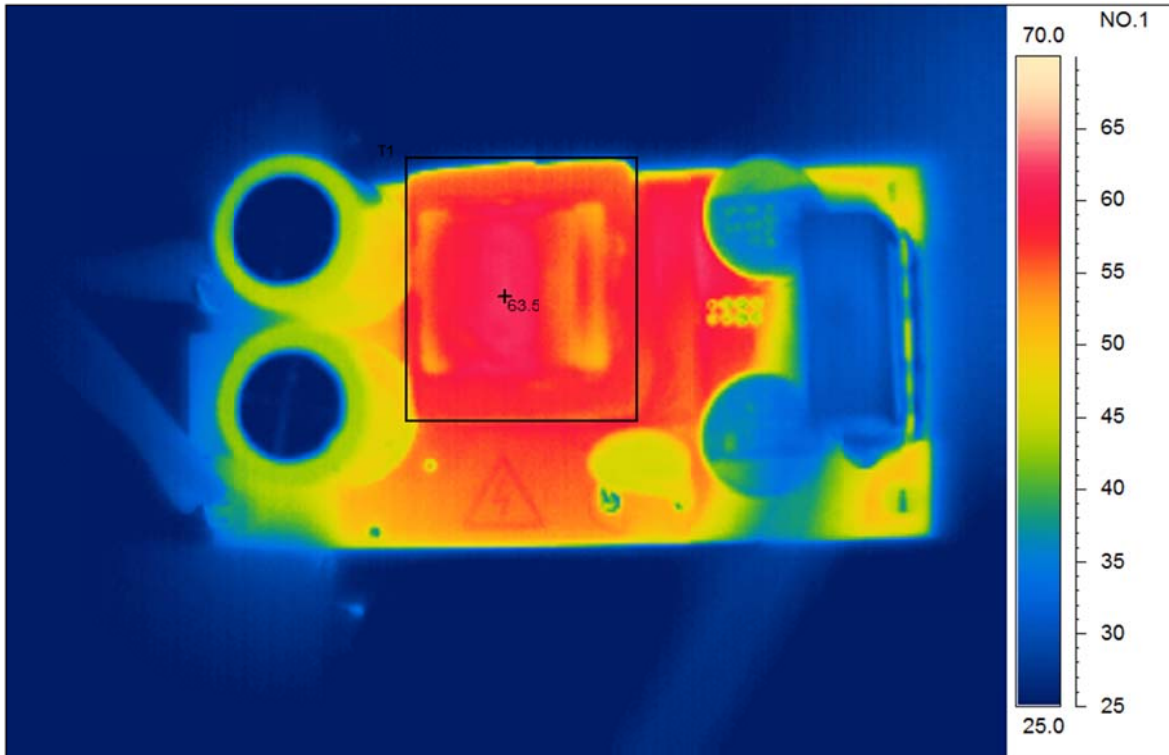
4 Current Limit



5 Thermal Images

The thermal images below show the assembly with loaded with 2A. The ambient temperature was 25°C.

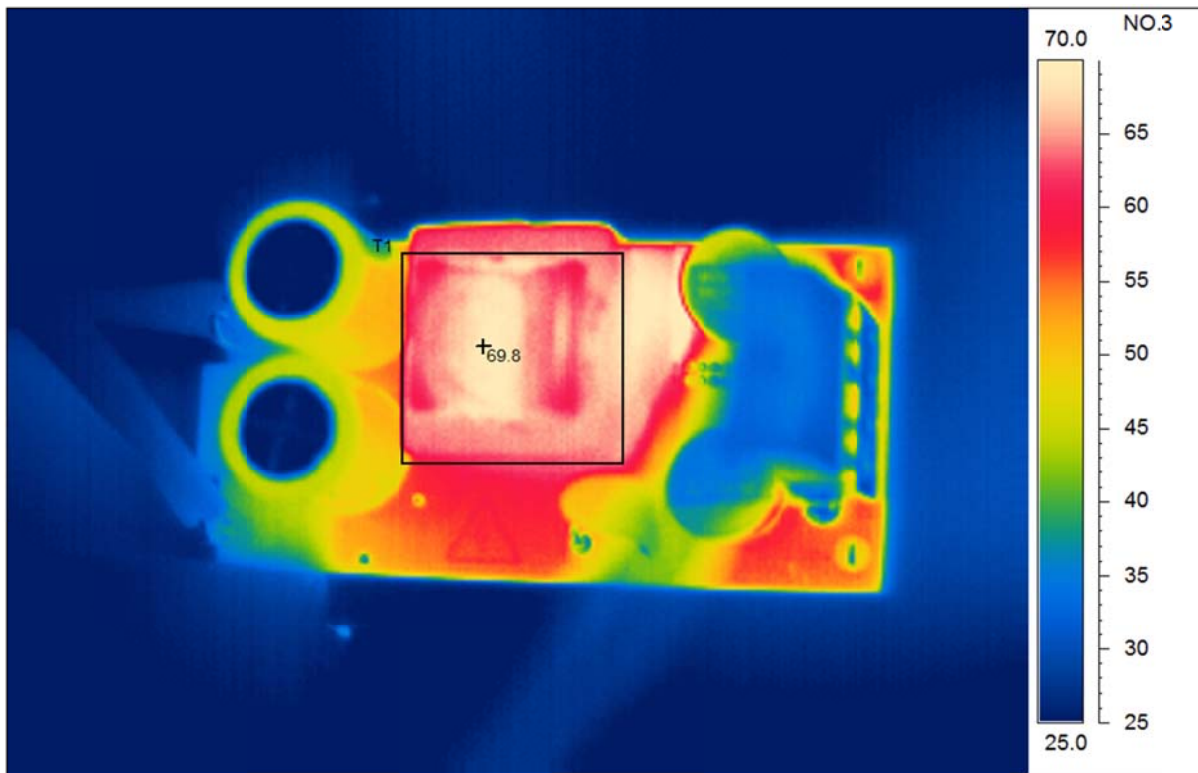
5.1 120VAC/60Hz

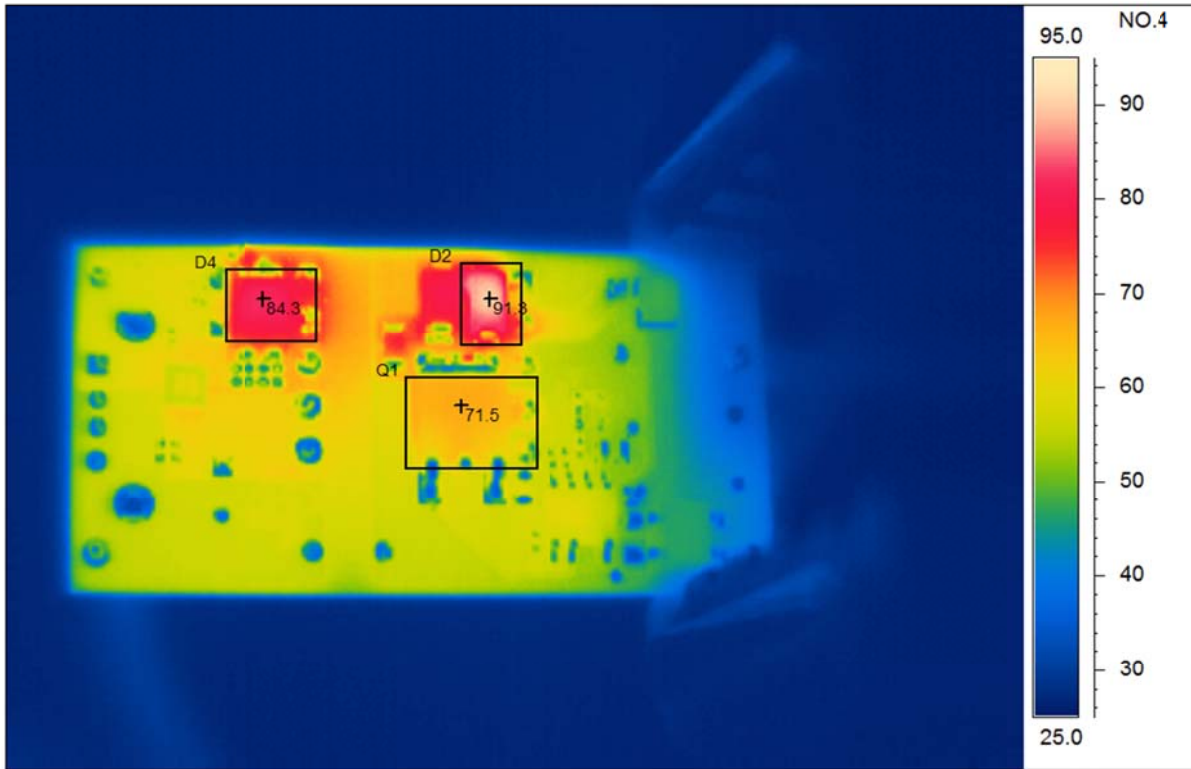


Area analysis	Value
T1 Max	63.5°C

Area analysis	Value
D2Max	89.2°C
D4Max	71.1°C
Q1 Max	62.9°C

5.2 230VAC/50Hz



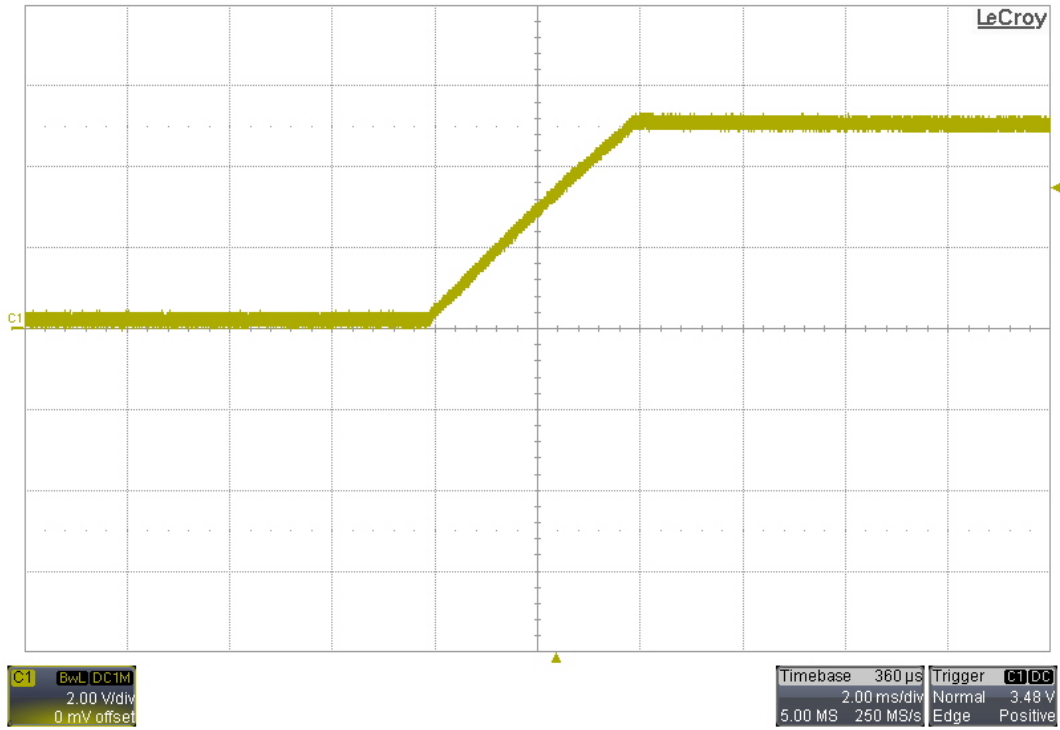


Area analysis	Value	NO.3
T1 Max	69.8°C	

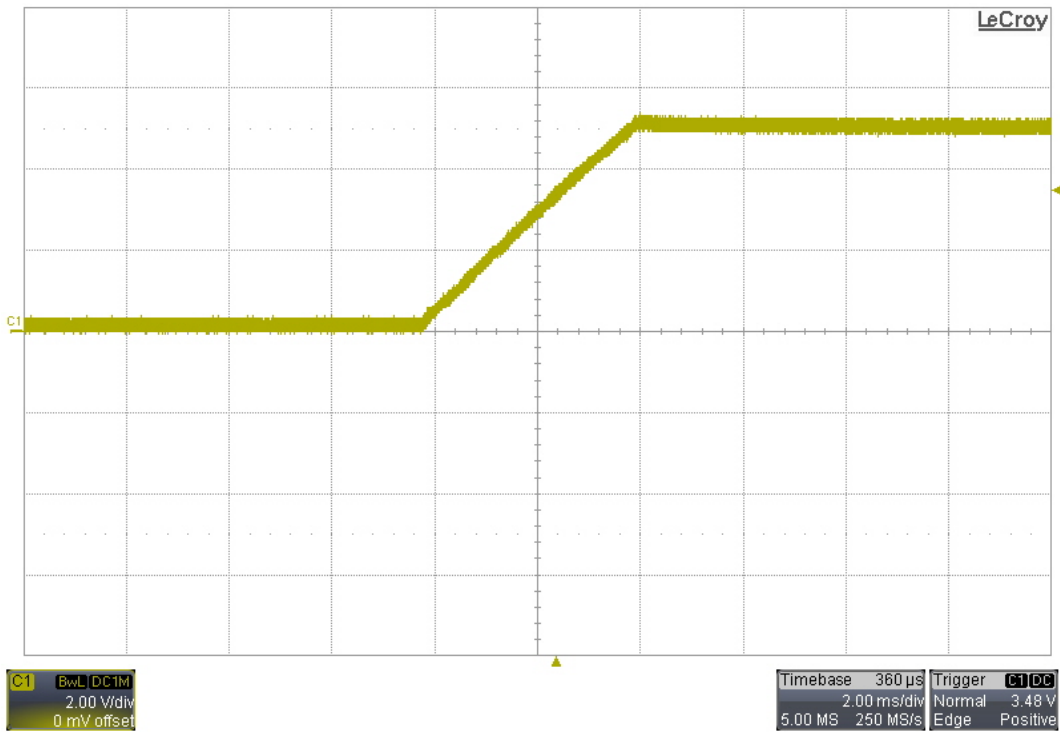
Area analysis	Value	NO.4
D2Max	91.3°C	
D4Max	84.3°C	
Q1 Max	71.5°C	

6 Startup

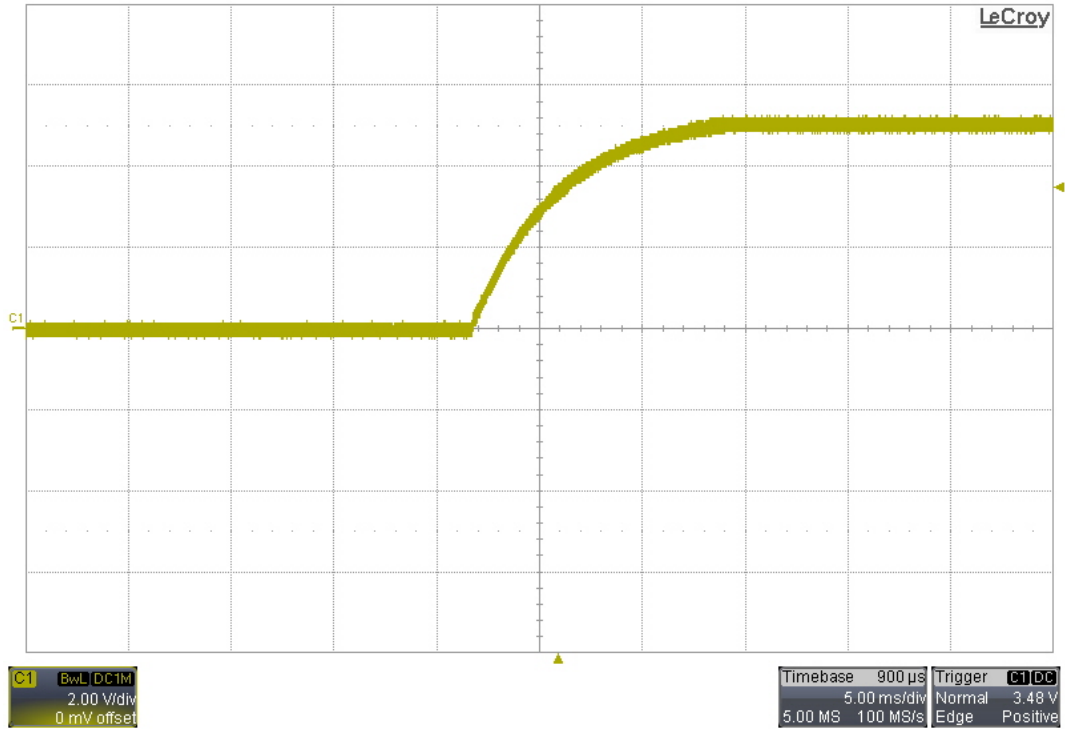
6.1 120VAC/60Hz – No Load



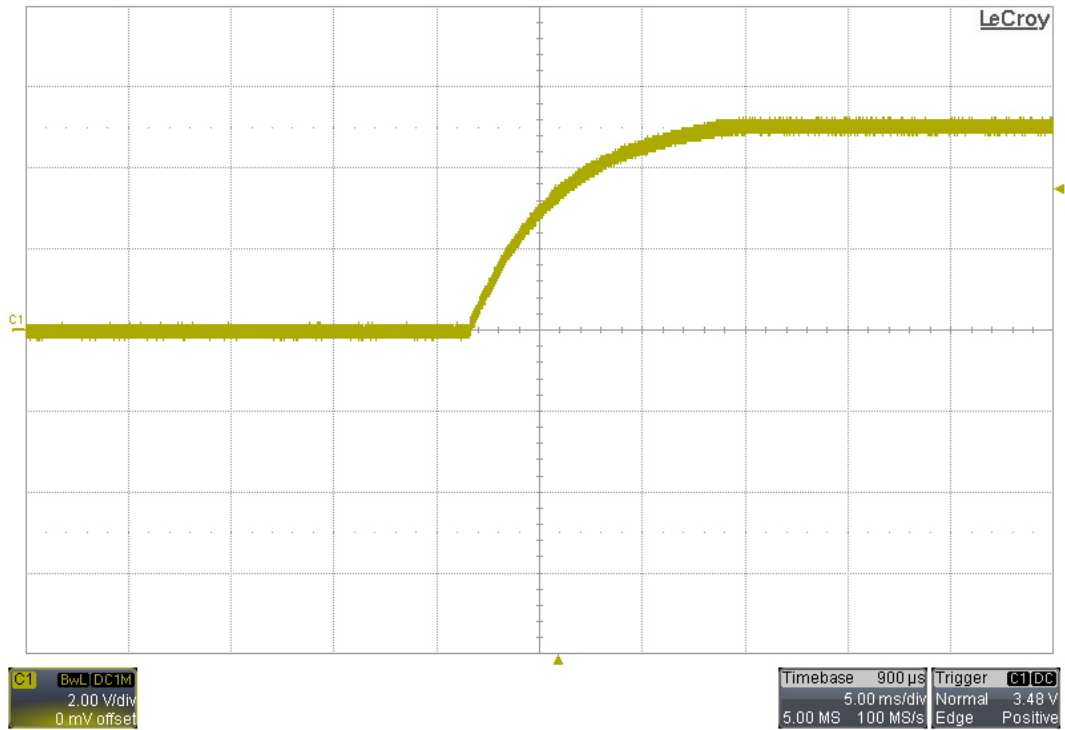
6.2 230VAC/50Hz – No Load



6.3 120VAC/60Hz – 2.5Ω Load

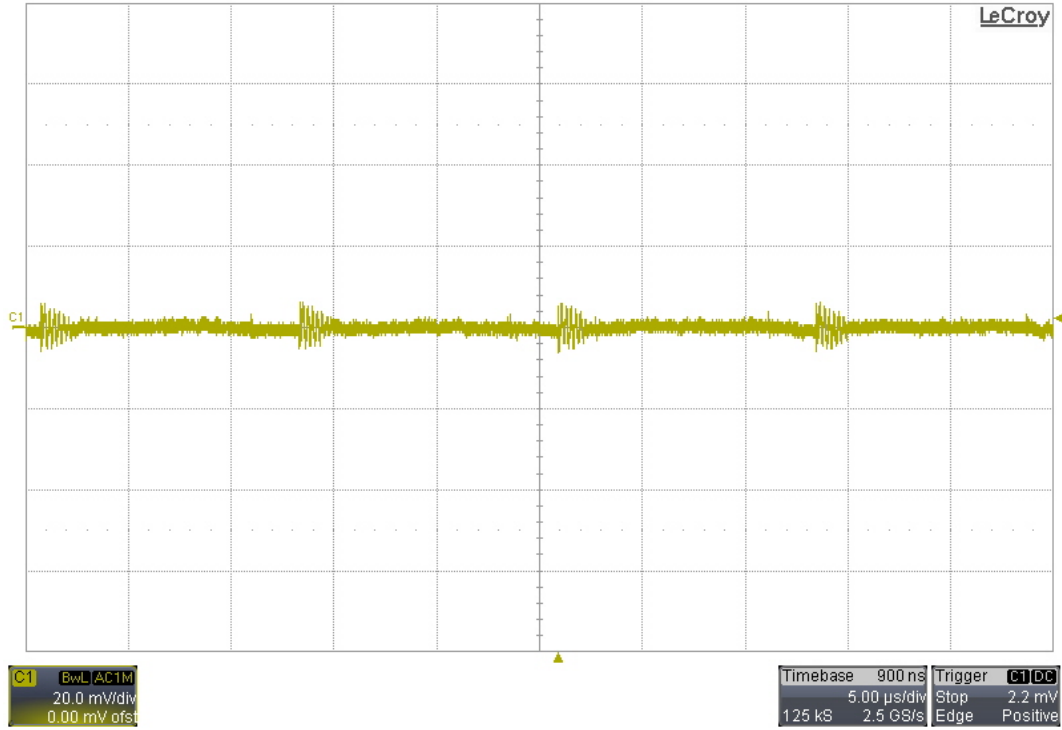


6.4 230VAC/50Hz – 2.5Ω Load

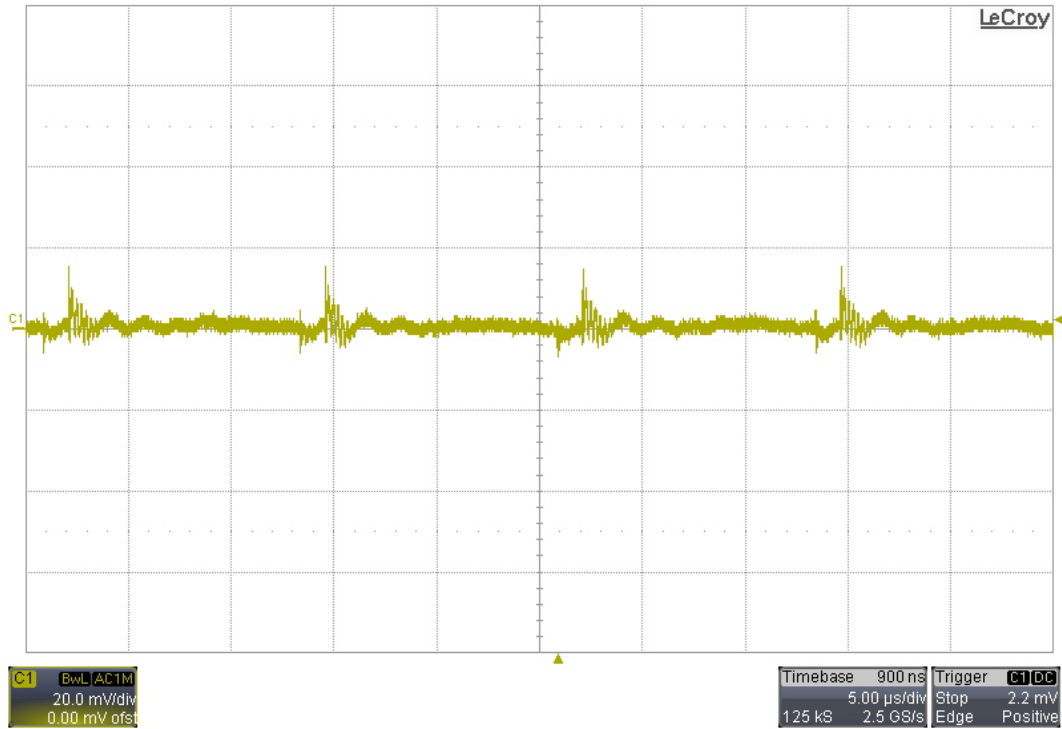


7 Output Ripple Voltage

7.1 120VAC/60Hz -2A Load

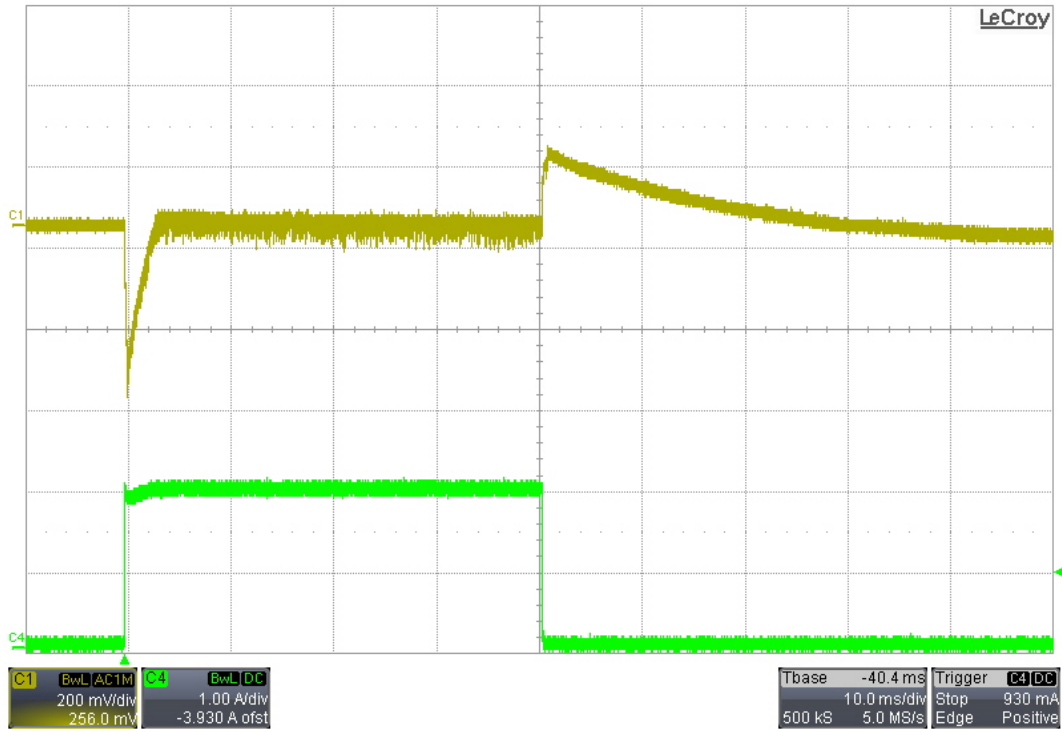


7.2 230VAC/50Hz -2A Load

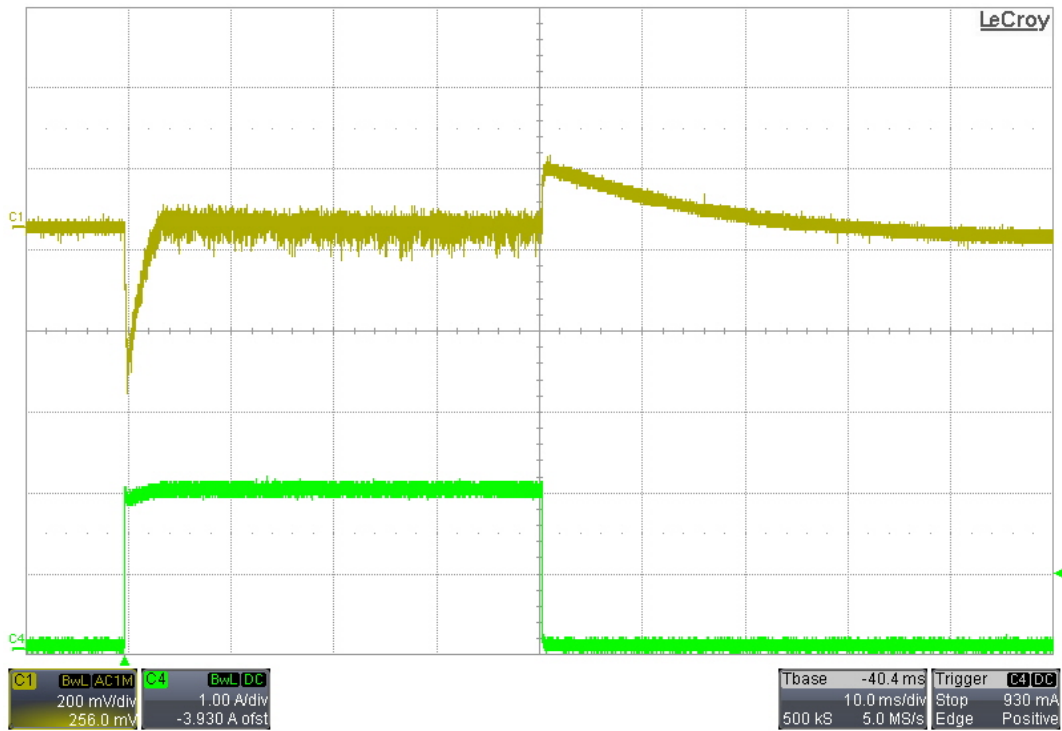


8 Load Transients

8.1 5mA to 2A Transient; 120VAC/60Hz Input



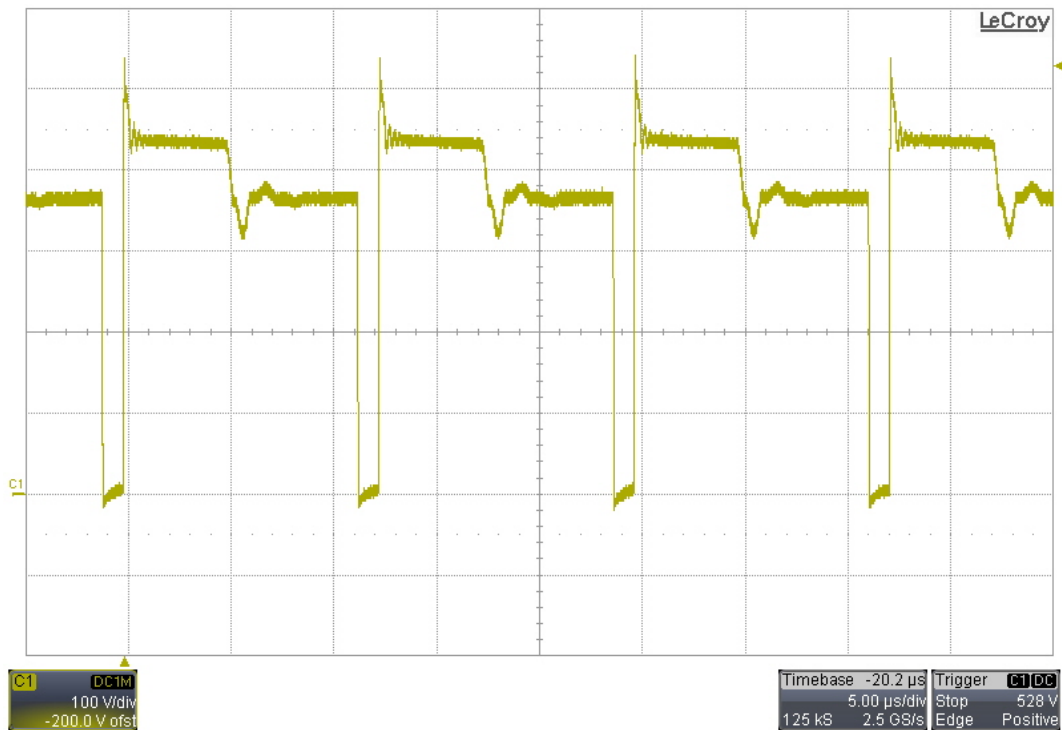
8.2 5mA to 2A Transient; 230VAC/50Hz Input



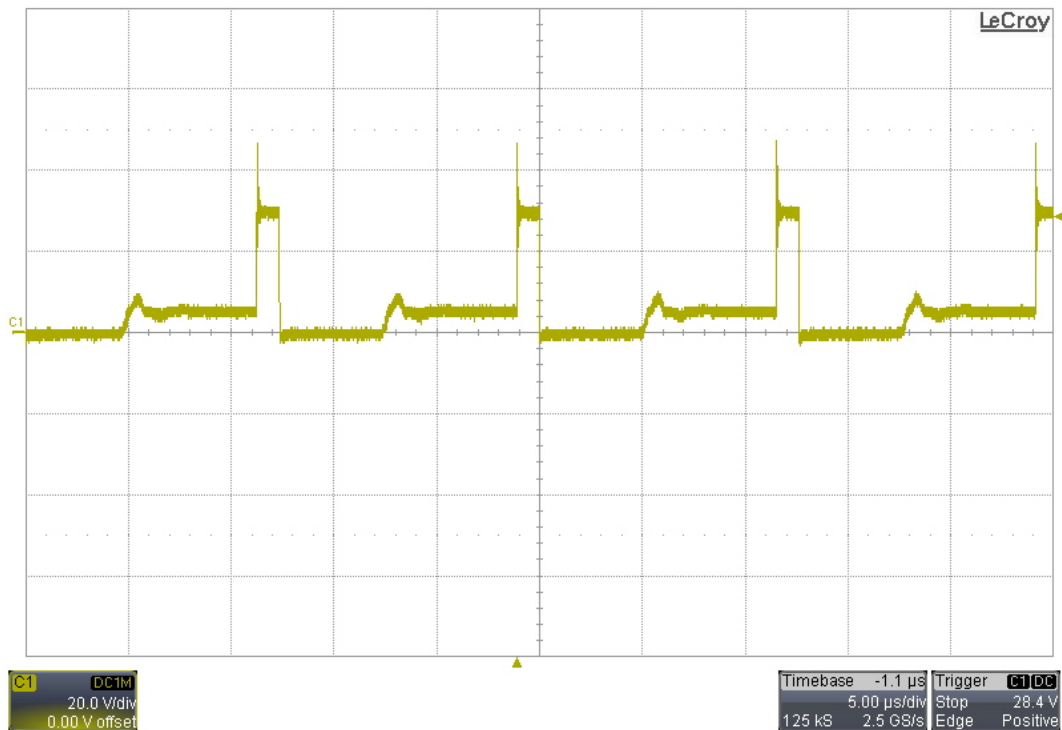
9 Switching Waveforms

The input was 265VAC/50Hz, and the output was loaded with 2A.

9.1 Drain of Primary FET – Q1



9.2 Cathode of Output Diode – D4



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