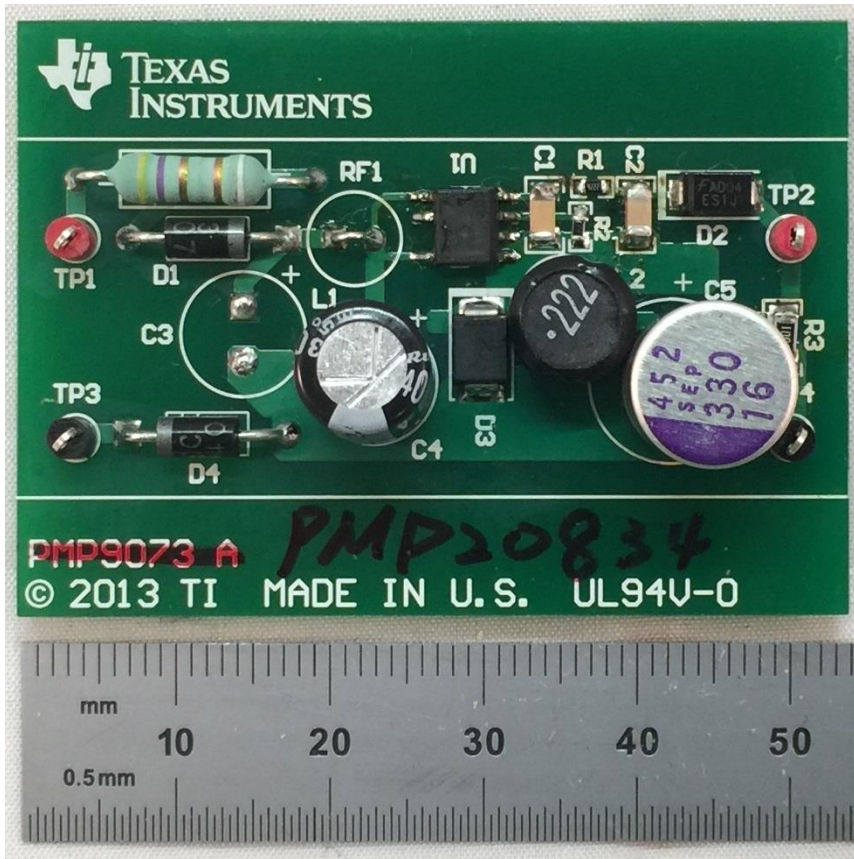


1 Photo

The photographs below show the PMP20834 Rev A assembly. This circuit was built on a PMP9073 Rev A PCB.



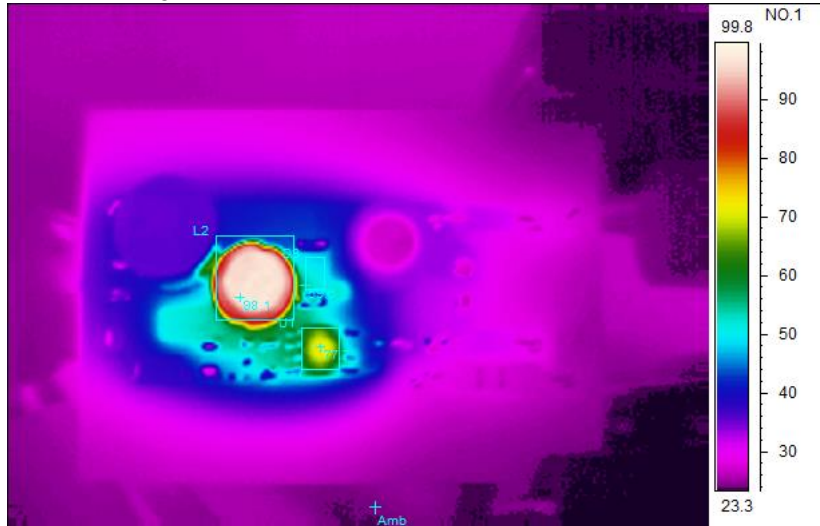
2 Output voltage regulation

| 120VAC/60Hz input | | 230VAC/50Hz input | |
|-------------------|---------|-------------------|---------|
| Vout(V) | Iout(A) | Vout(V) | Iout(A) |
| 4.51 | 0.2009 | 4.49 | 0.2007 |
| 4.72 | 0.15 | 4.69 | 0.1508 |
| 4.94 | 0.1001 | 4.92 | 0.1009 |
| 4.99 | 0.079 | 4.97 | 0.0809 |
| 5.02 | 0.0601 | 5.01 | 0.0599 |
| 5.06 | 0.0402 | 5.05 | 0.04 |
| 5.12 | 0.02017 | 5.11 | 0.02015 |
| 5.41 | 0 | 5.4 | 0 |

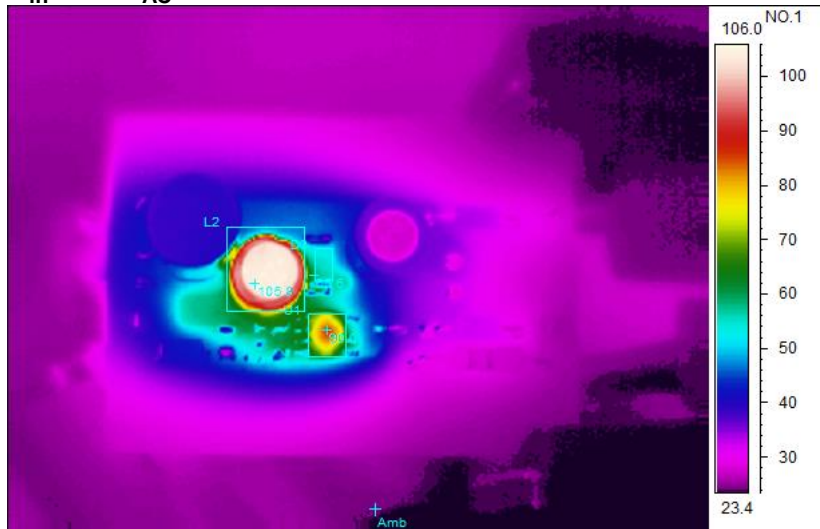
3 Thermal Images

The thermal images below show a top view and bottom view of the board under 120V_{AC}/60Hz and 230V_{AC}/50Hz input conditions. The ambient temperature was 20°C with no forced air flow. The output was at full load: 5V/0.2A.

V_{in}=120V_{AC}/60Hz



| Spot analysis | Value |
|-----------------|--------|
| Amb Temperature | 24.3°C |
| Area analysis | Value |
| L2Max | 98.1°C |
| U1Max | 77.7°C |
| D3Max | 59.6°C |

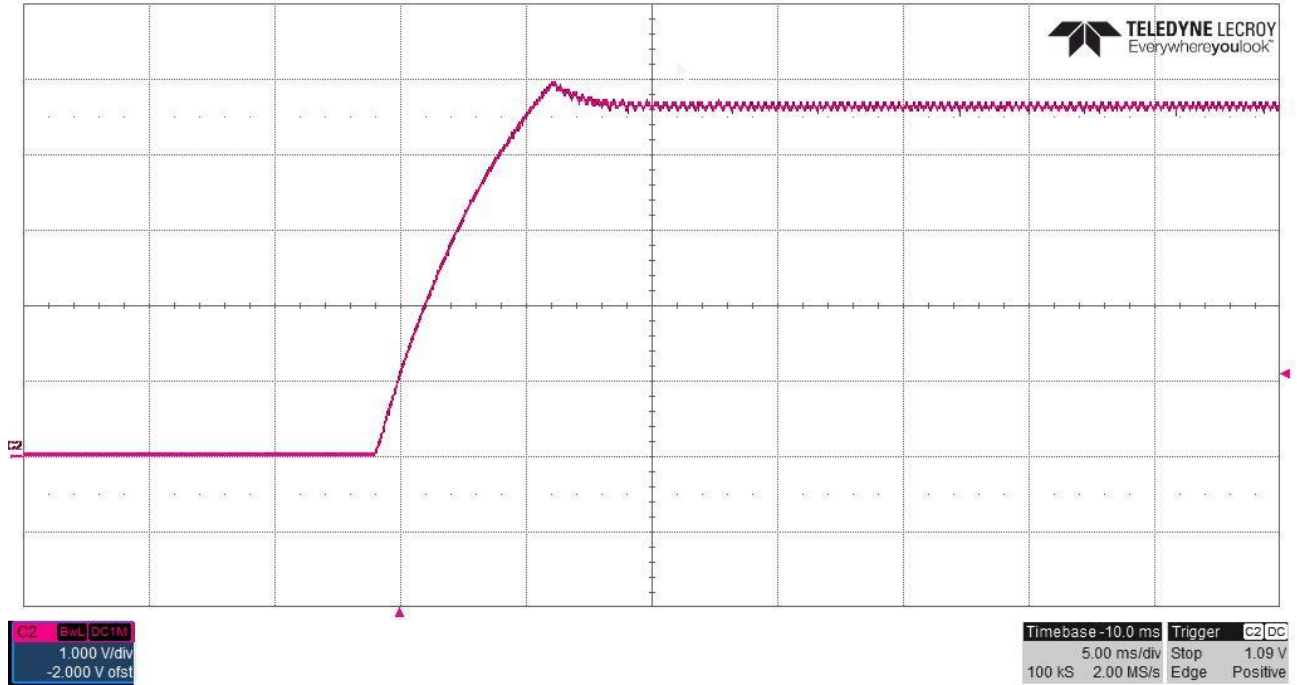
$V_{in}=230V_{AC}/60Hz$


| Spot analysis | Value |
|-----------------|---------|
| Amb Temperature | 24.5°C |
| Area analysis | Value |
| L2Max | 105.8°C |
| U1Max | 90.0°C |
| D3Max | 65.6°C |

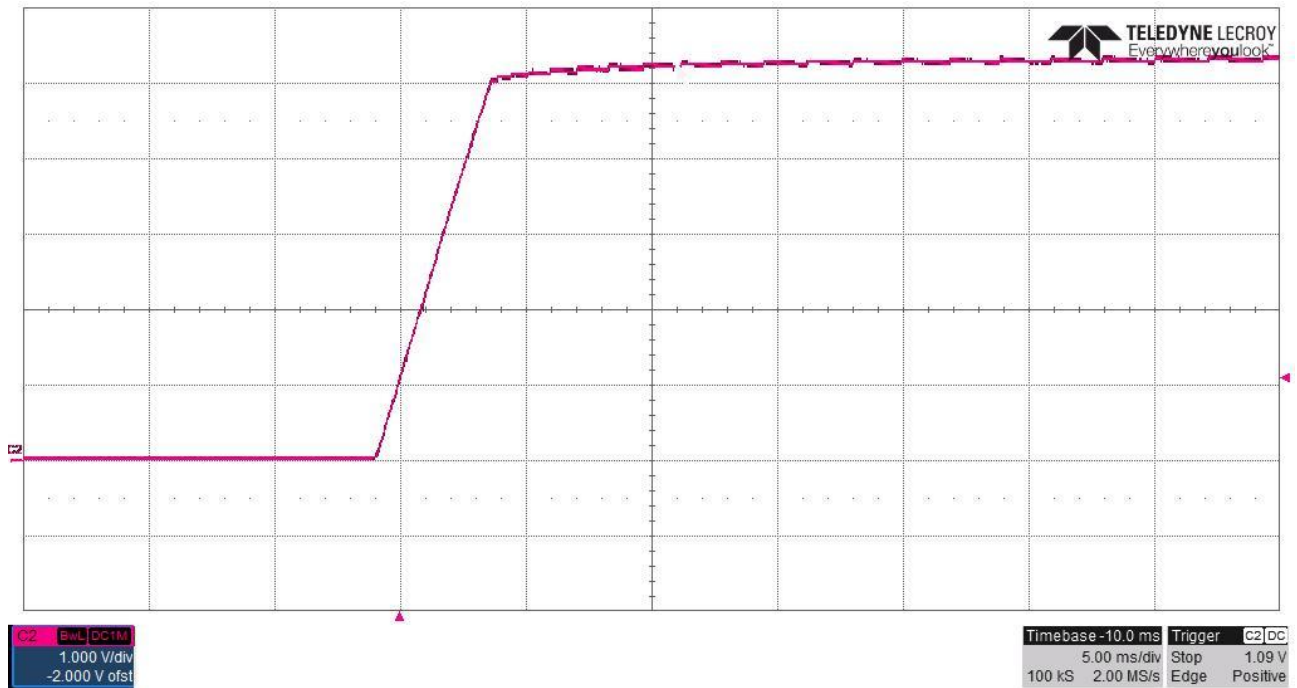
4 Startup Waveforms

The output voltages at startup are shown in the images below.

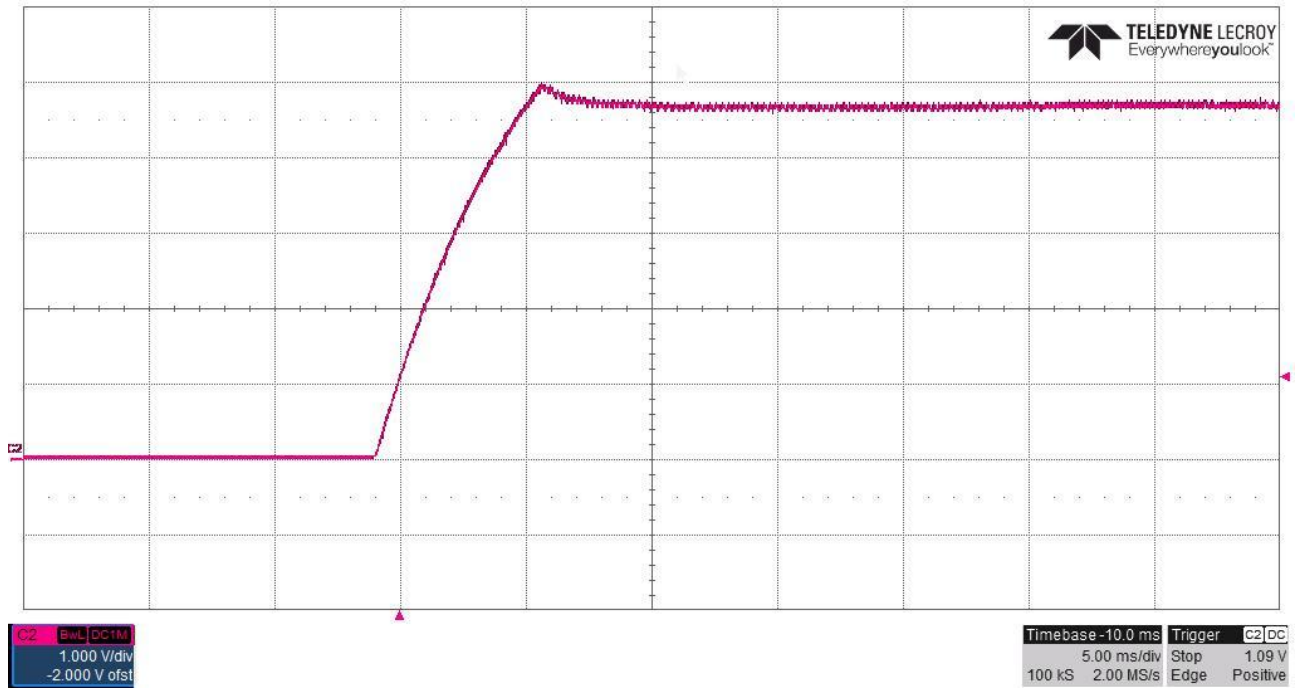
4.1 Start Up @ 120V_{AC}: 5V/0.2A.



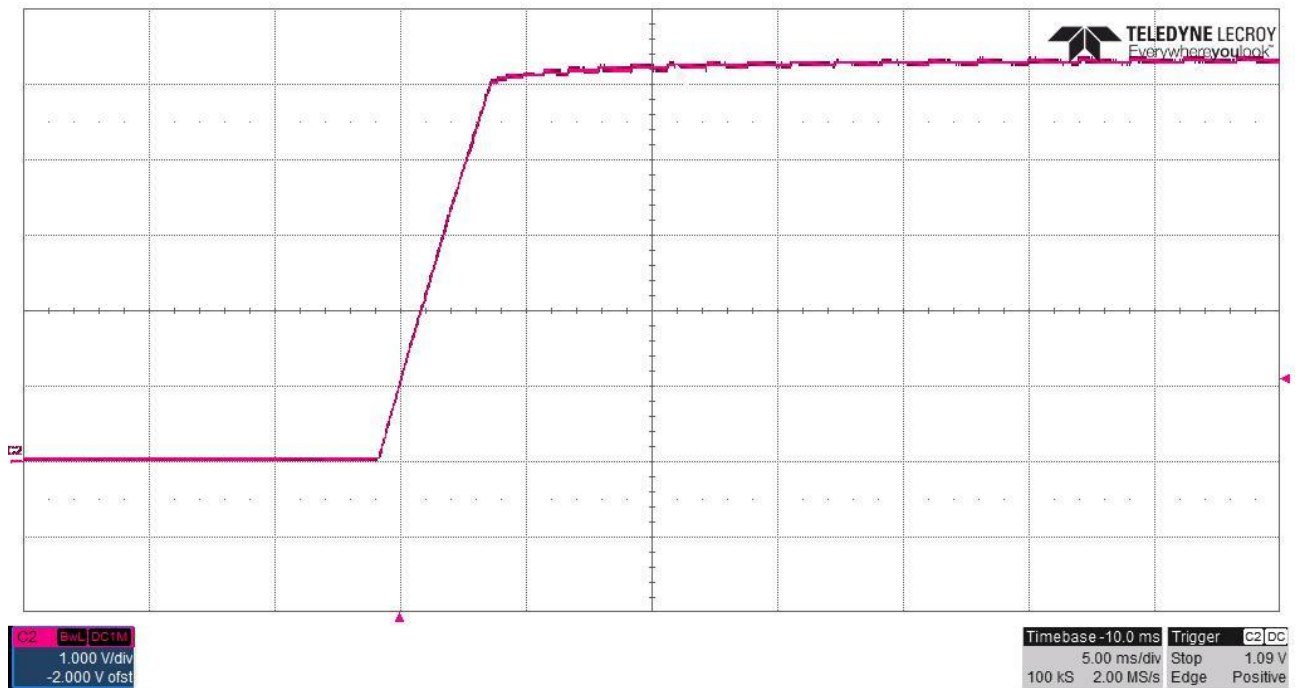
4.2 Start Up @ 120V_{AC}: no load.



4.3 Start Up @ 230V_{AC}: 5V/0.2A.



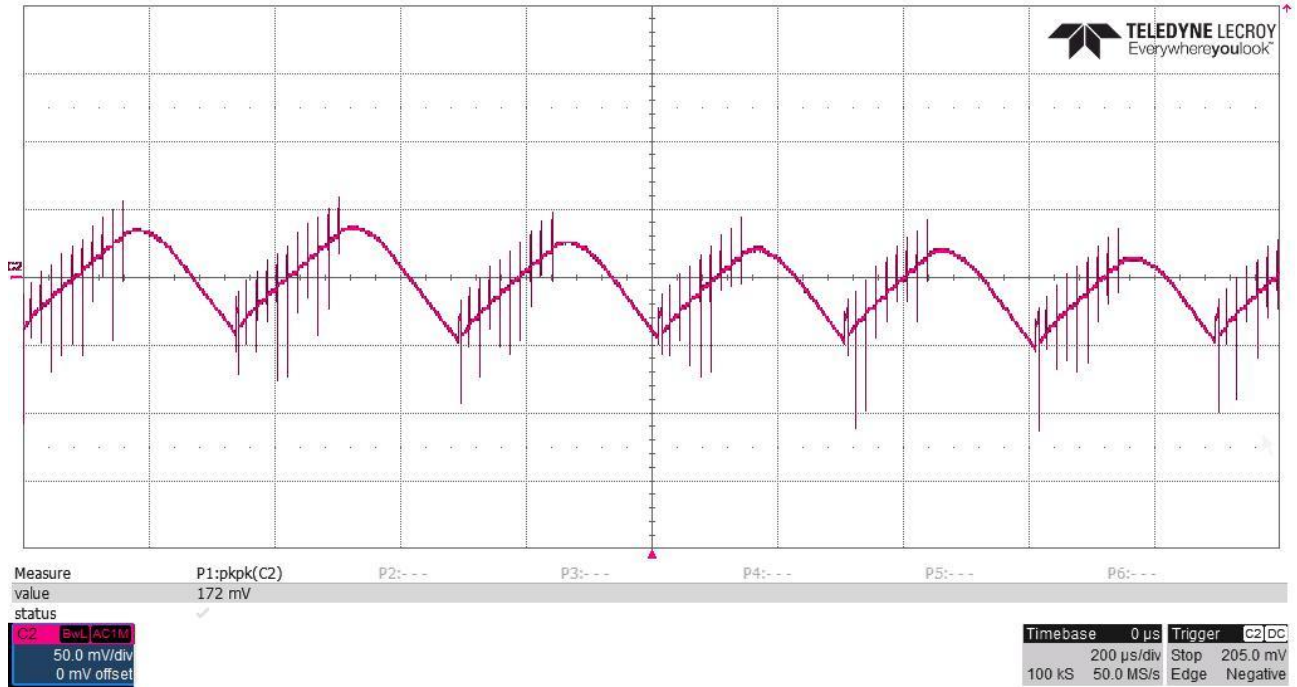
4.4 Start Up @ 230V_{AC}: no load.



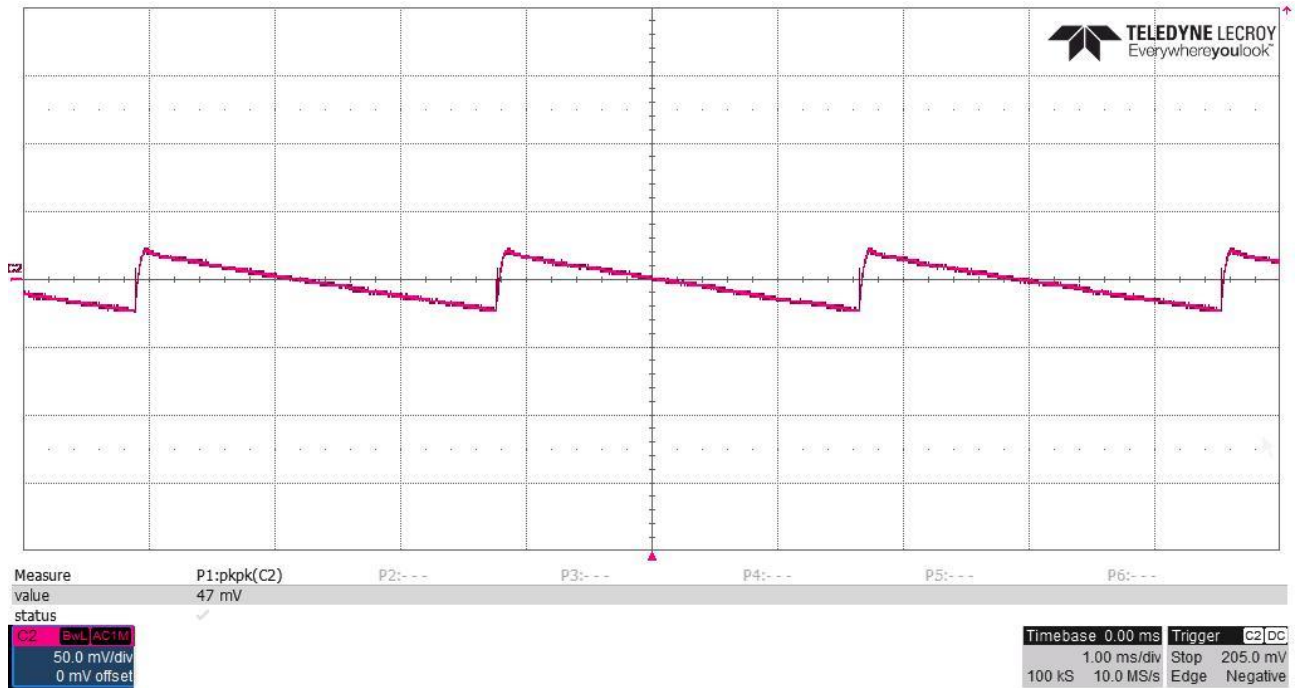
5 Output Ripple Voltages

The output ripple voltages are shown in the plots below.

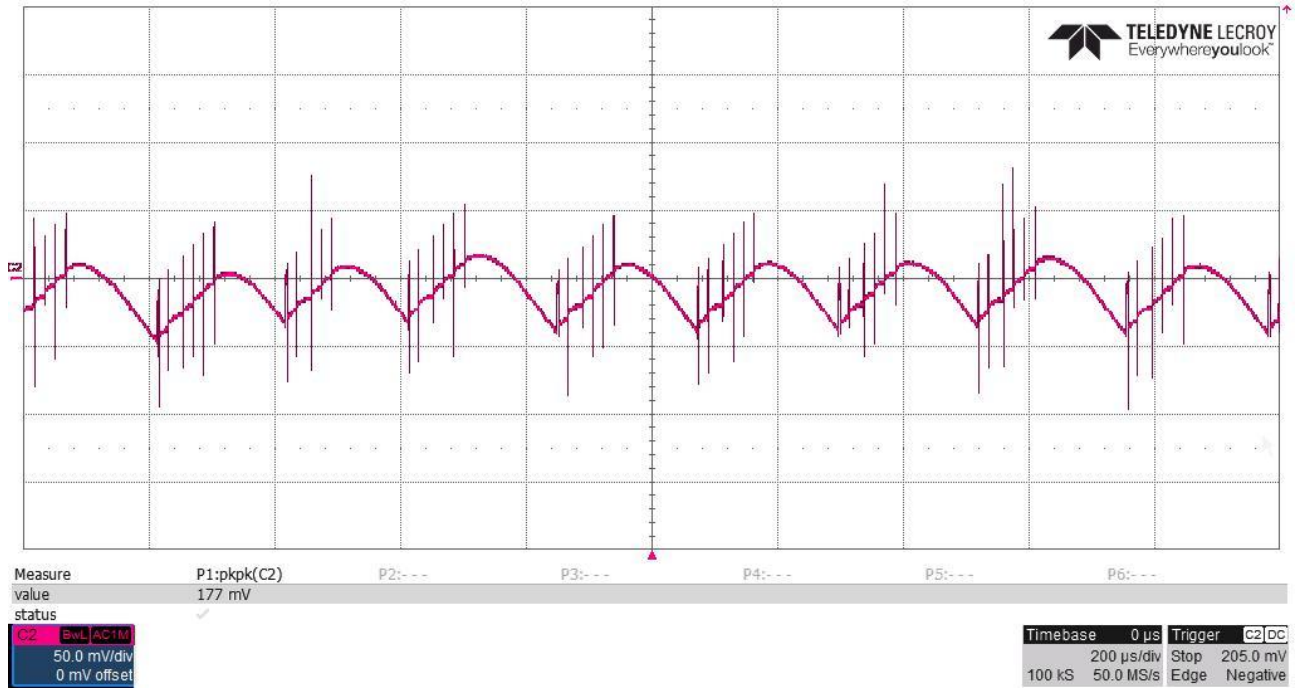
5.1 120V_{AC}: 5V/0.2A:



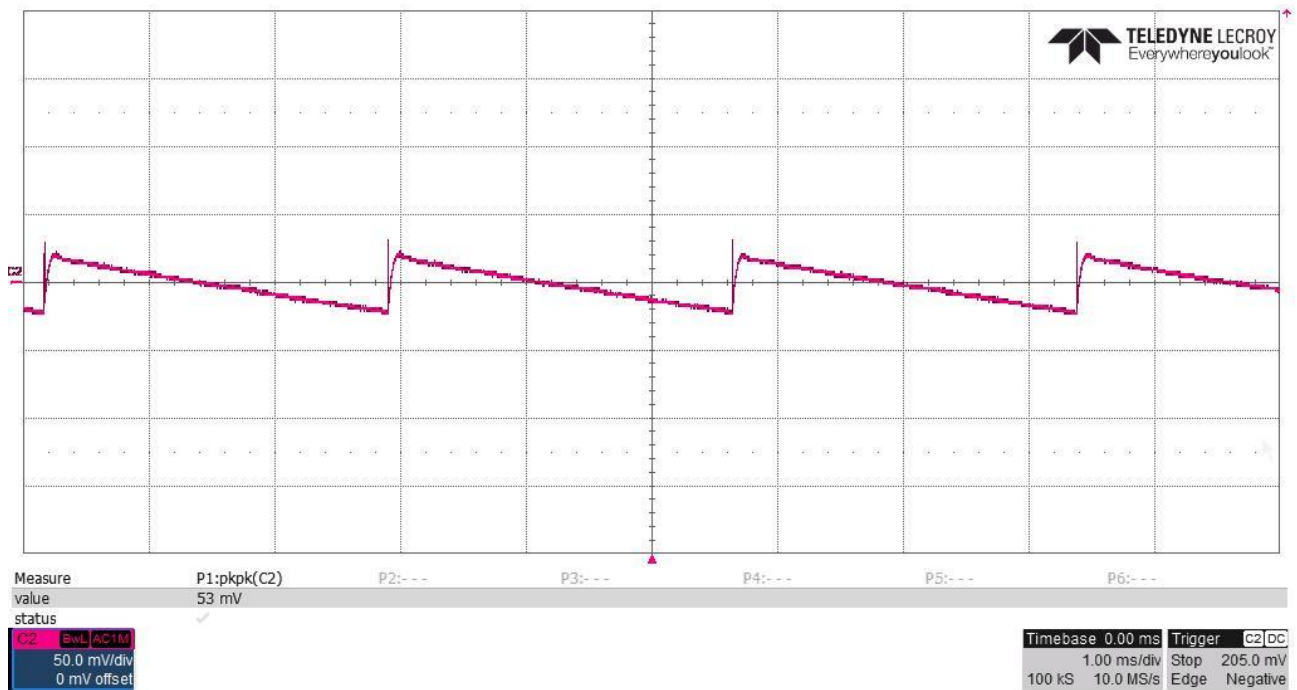
5.2 120V_{AC}: no load:



5.3 230V_{AC}: 5V/0.2A:

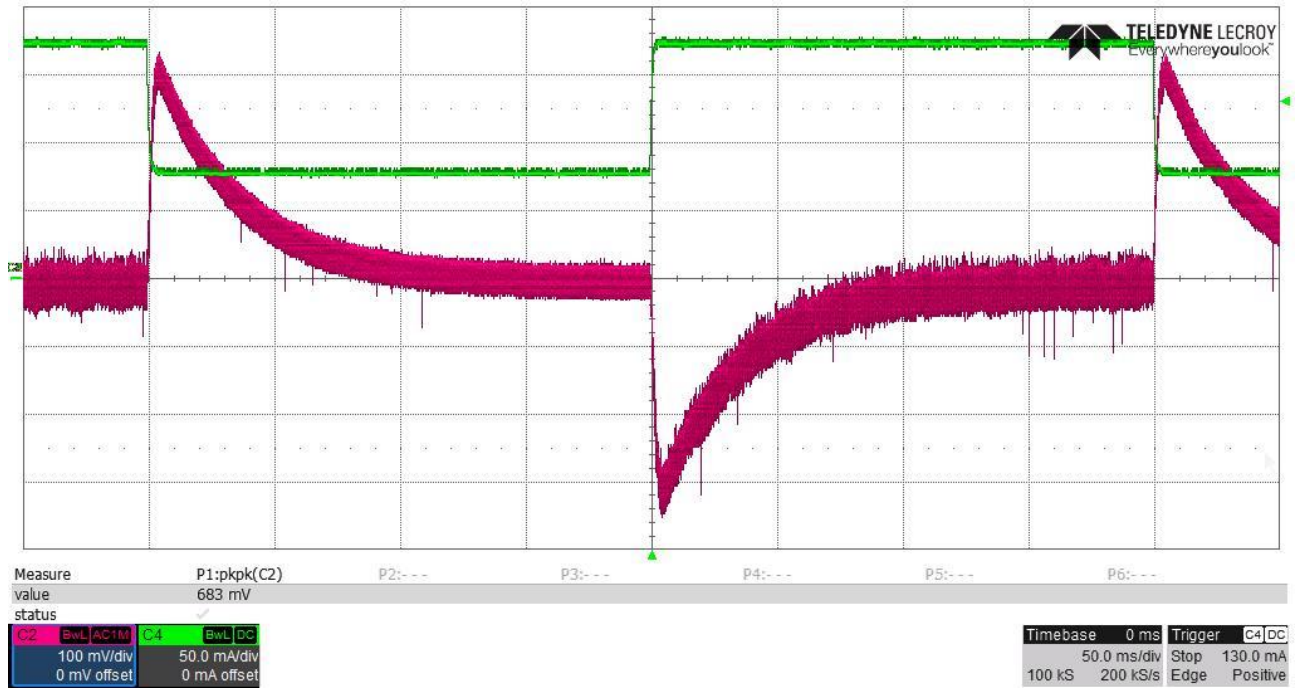


5.4 230V_{AC}: no load:



6 Load Transient

The image below shows $5V_{out}$ voltage response to a **0.1A** to **0.2A** load transient at $120V_{AC}/60Hz$.



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