

•

•

•

•

•

•

•

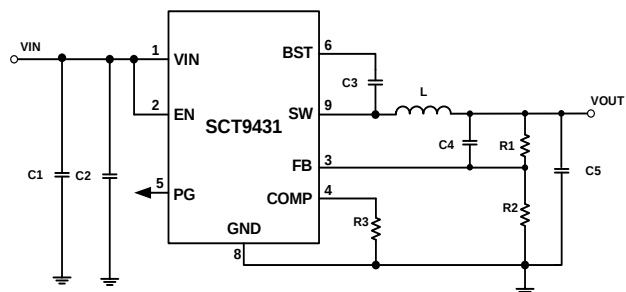
•

•

•

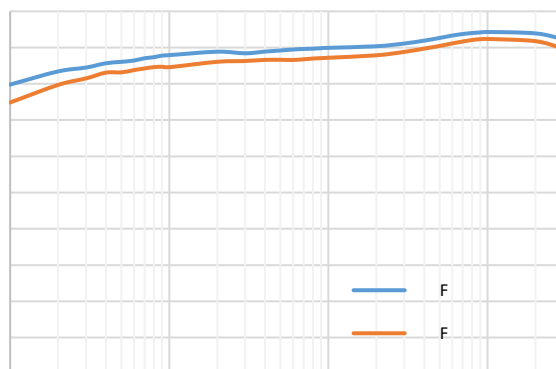
•

•



Efficiency(%)

Efficiency vs Output Current



Output Current(A)

:

6 9 , 9 ( ) 3,  
, = 0 ,

7 ( 2 ( . 05.  
7 ,

: ( 5 ( 9  
7 ( 2 8

7 ( 2 ( . ,  
4 ( 9 2 05.

7 05:

7 ( 2 ( . ,  
, : 9 0 0 5

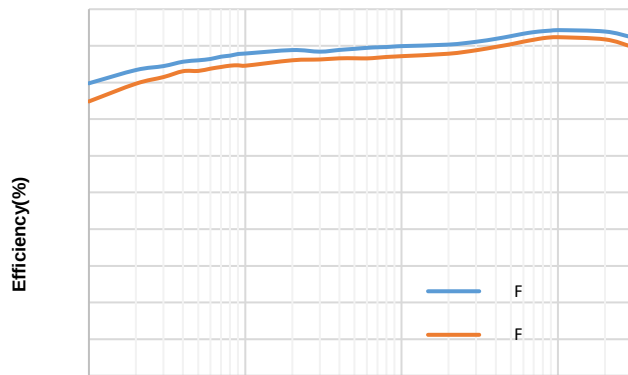
|     |   |                                                                                                                                                                                     |
|-----|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PG  | 5 | Open drain power-good output that is pulled to GND when the output voltage is out of its regulation limits or during soft-start. There is an internal 5M $\Omega$ pull-up resistor. |
| BST | 6 | Power supply for the high-side power MOSFET gate driver. Must connect a 0.1uF or greater ceramic capacitor between BST pin and SW node.                                             |
| NC  | 7 | NC                                                                                                                                                                                  |
| GND | 8 | Power ground. Must be soldered directly to ground plane.                                                                                                                            |
| SW  | 9 | Switching node of the buck converter.                                                                                                                                               |

|              |           |     |     |    |
|--------------|-----------|-----|-----|----|
| 7( 9( 4, , 9 | , - 00 05 | 4 0 | 4 ( | 50 |
|              |           |     |     |    |
|              |           |     |     |    |
|              |           |     |     |    |

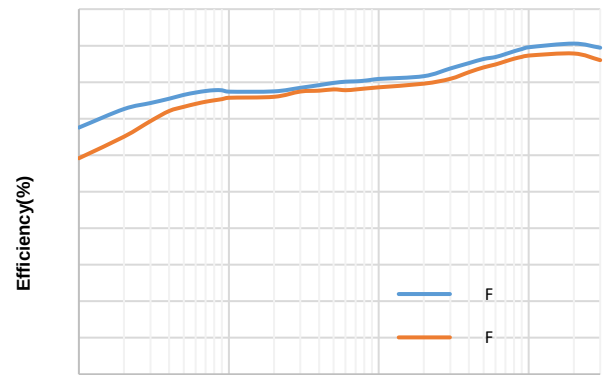
|              |           |     |     |    |
|--------------|-----------|-----|-----|----|
| 7( 9( 4, , 9 | , - 00 05 | 4 0 | 4 ( | 50 |
|              |           |     |     |    |
|              |           |     |     |    |

|              |                |         |    |
|--------------|----------------|---------|----|
| 7( 9( 4, , 9 | / , 94( 34, 90 | 8 - 5 3 | 50 |
|              |                |         |    |
|              |                |         |    |
|              |                |         |    |
|              |                |         |    |

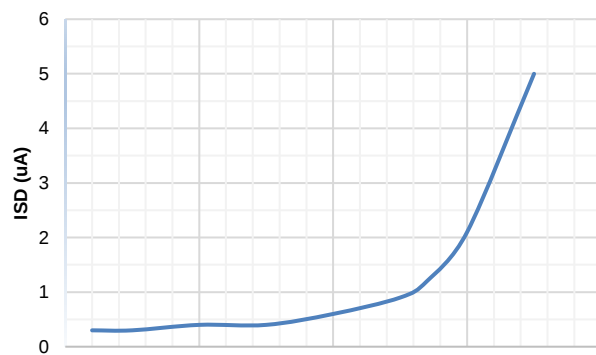
|                |              |            |      |      |    |
|----------------|--------------|------------|------|------|----|
| : 4) 63        | 7( 9( 4, , 9 | ,: 65 0 65 | 4 65 | 7 4( | 50 |
| 7 L : H K6     |              |            |      |      |    |
|                |              |            |      |      |    |
|                |              |            |      |      |    |
|                |              |            |      |      |    |
|                |              |            |      |      |    |
|                |              |            |      |      |    |
| , H L : M: H   |              |            |      |      |    |
|                |              |            |      |      |    |
|                |              |            |      |      |    |
|                |              |            |      |      |    |
|                |              |            |      |      |    |
| 7 L 46: -,     |              |            |      |      |    |
|                |              |            |      |      |    |
|                |              |            |      |      |    |
| RRL            |              |            |      |      |    |
|                |              |            |      |      |    |
|                |              |            |      |      |    |
| L 3P P         |              |            |      |      |    |
|                |              |            |      |      |    |
|                |              |            |      |      |    |
|                |              |            |      |      |    |
| : PJOPN- L L J |              |            |      |      |    |
|                |              |            |      |      |    |
|                |              |            |      |      |    |
|                |              |            |      |      |    |
| : M: H P L     |              |            |      |      |    |
|                |              |            |      |      |    |
| 7 LJP          |              |            |      |      |    |
|                |              |            |      |      |    |
|                |              |            |      |      |    |



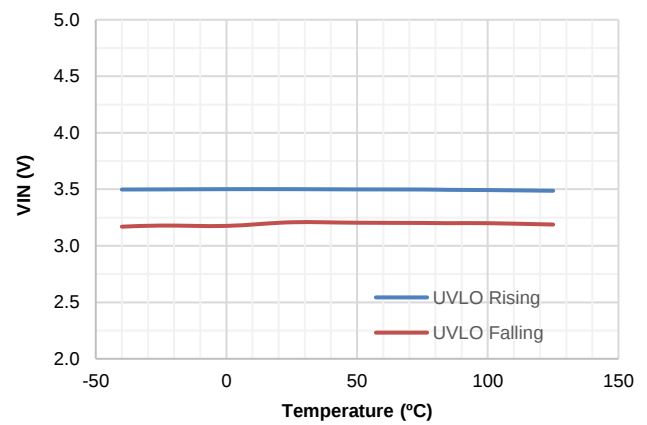
Output Current(A)



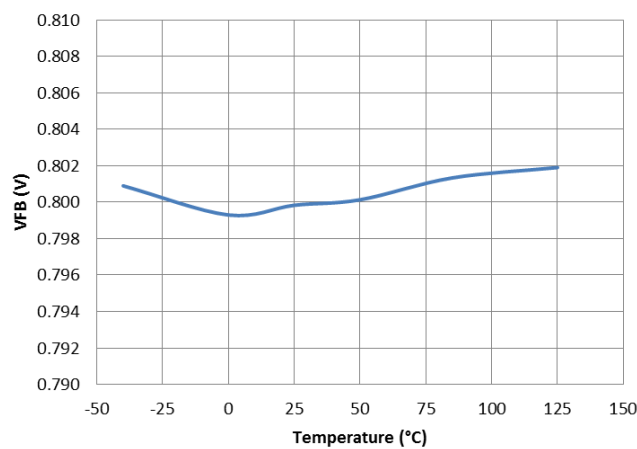
Output Current(A)



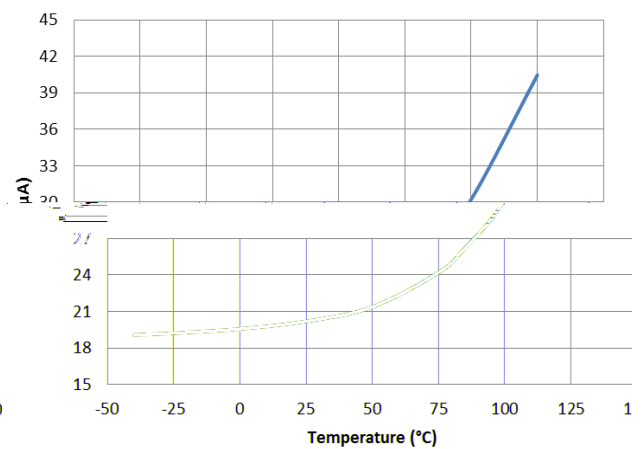
Temperature (°C)



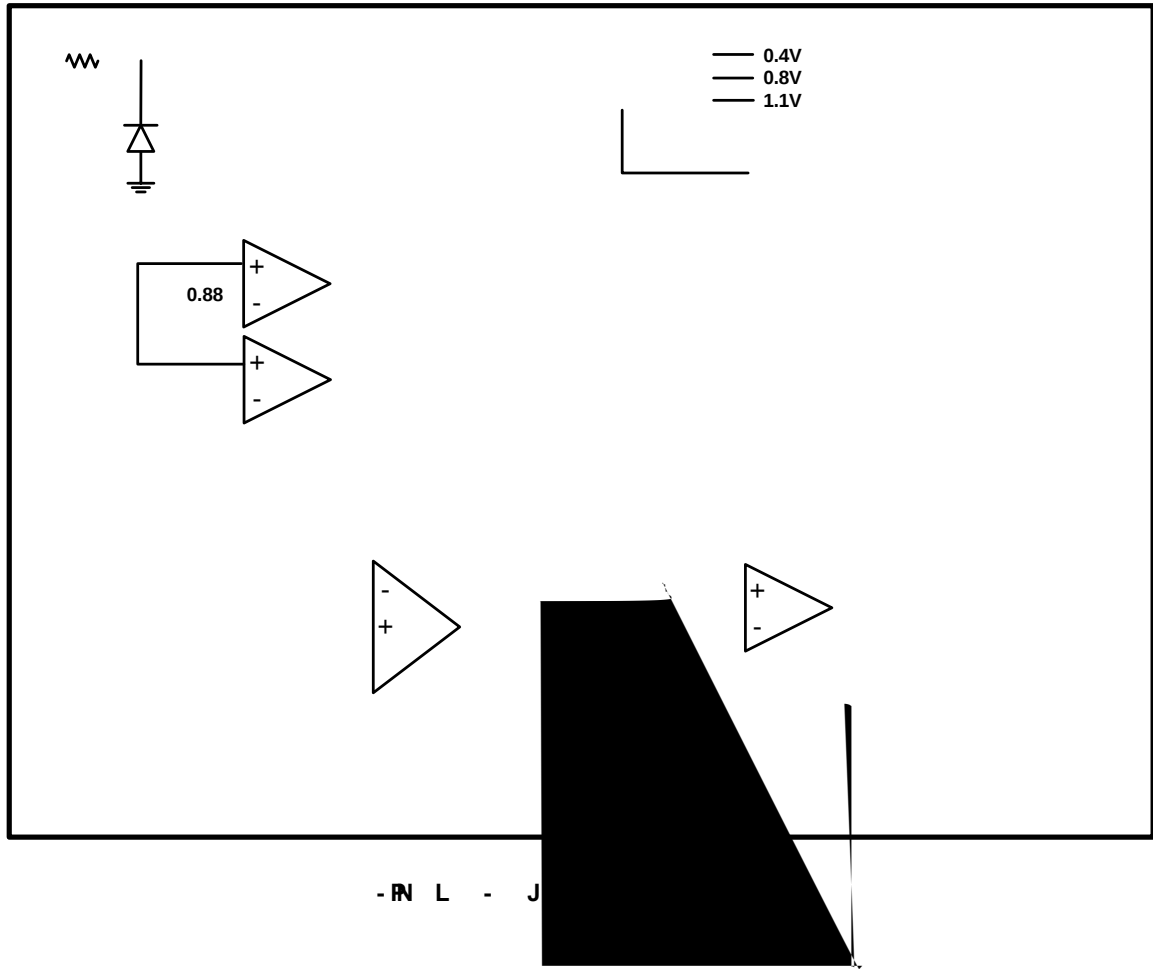
Temperature (°C)



Temperature (°C)

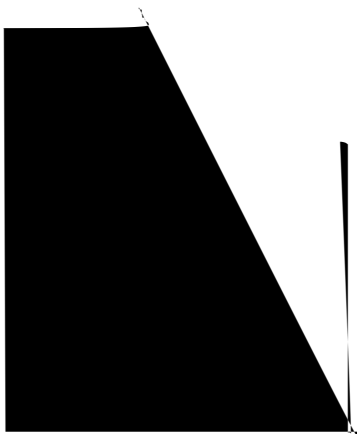


Temperature (°C)



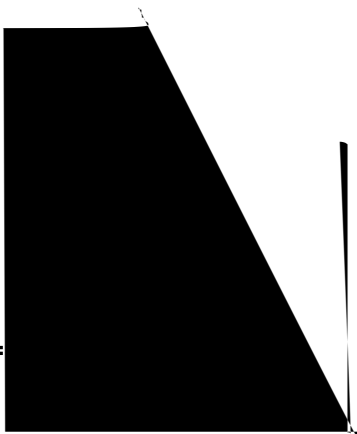
---

6 L R



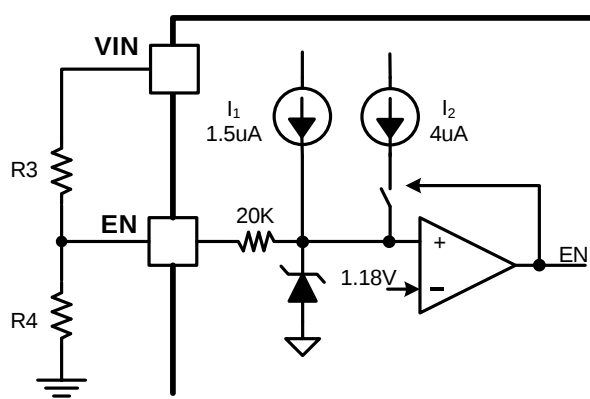
= 05 7

KL =



:

, H L H K: H



- R L ( KQ H L = 36

—

PH K / RJ 4 KL

6 L = HNL7 LJP HK4PP 6 P L

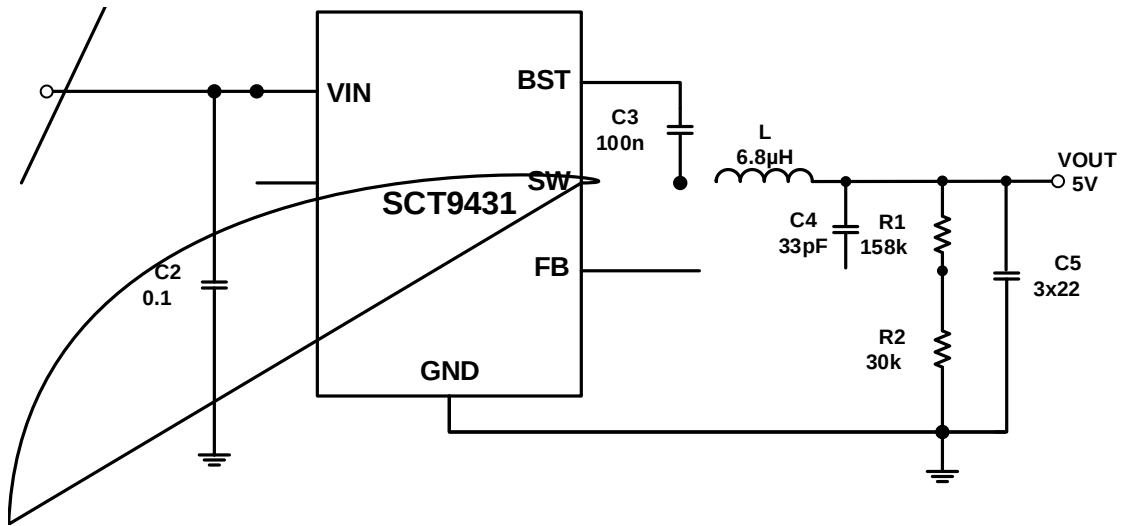
:

Q H: O K

o

o

R/H ( R/H P



- R L = 0 = ( 6 P O O L H L H P

L R 7 H H L L

| Design Parameters                    | Example Value |
|--------------------------------------|---------------|
| Input Voltage                        | 12V           |
| Output Voltage                       | 5V            |
| Output Current                       | 3A            |
| Output voltage ripple (peak to peak) | ±0.03V        |
| Switching Frequency                  | 400kHz        |

:

0 H HJP : L L J P

6 H HJP : L LJ P

~

\_\_\_\_\_

(6)

•  
•  
•

\_\_\_\_\_

(7)

—

\_\_\_\_\_

(8)

•  
•  
•

\_\_\_\_\_

(9)

:

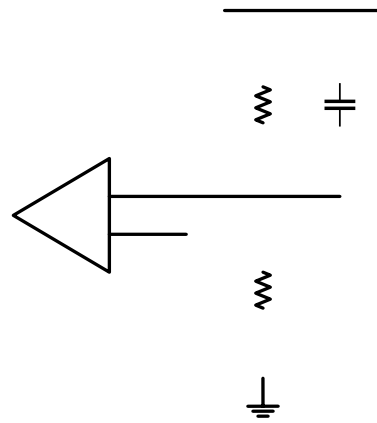
6 -LLK- HK H HJP :LLJ P

SCT9431

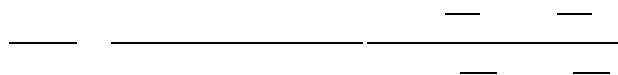
- R L = 0 = ( 6 PO, L H L HP

⋮

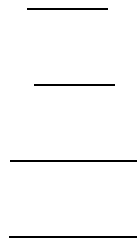
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 



- IN L L L H



(12)



⋮

⋮

\_\_\_\_\_

⋮

\_\_\_\_\_

⋮

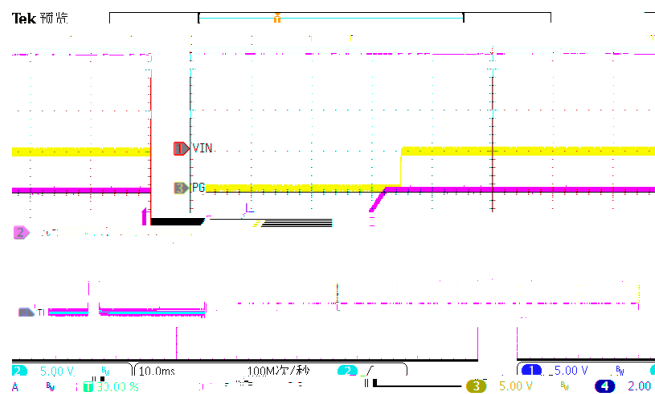
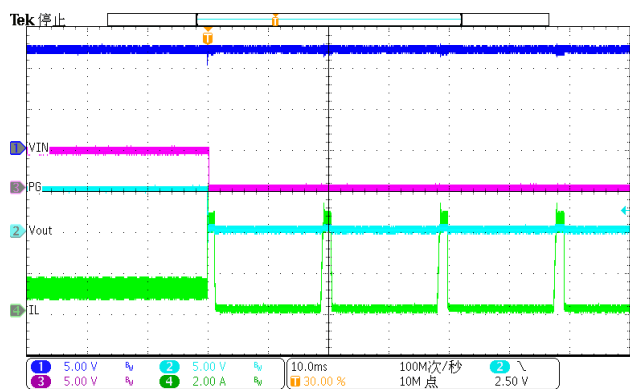
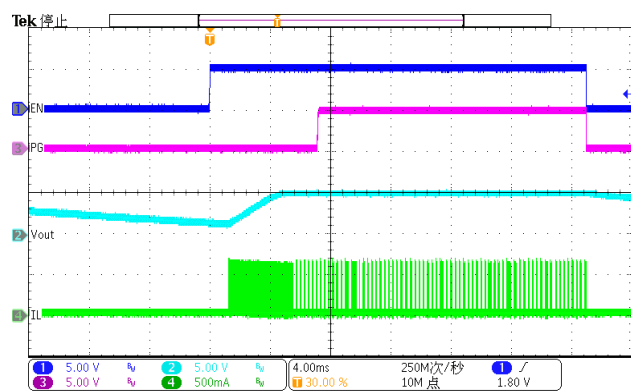
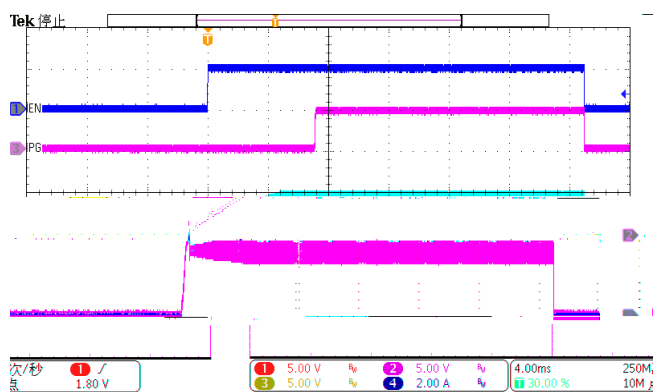
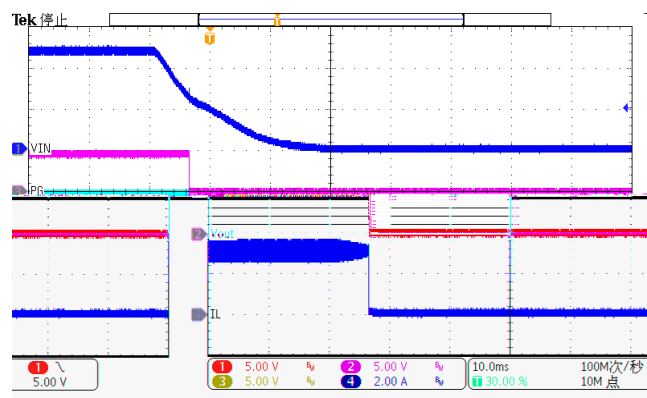
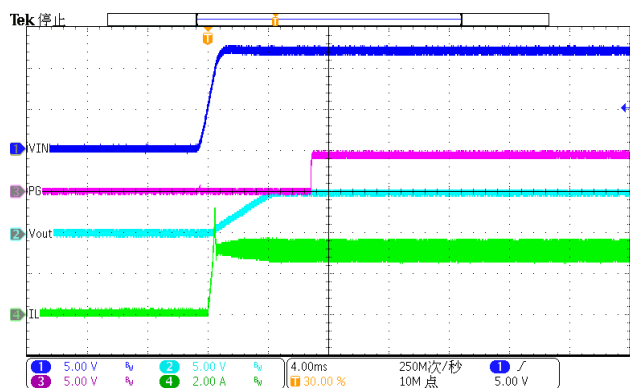
⓪

\_\_\_\_\_

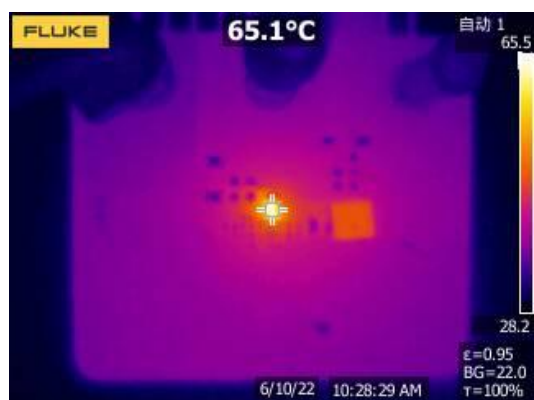
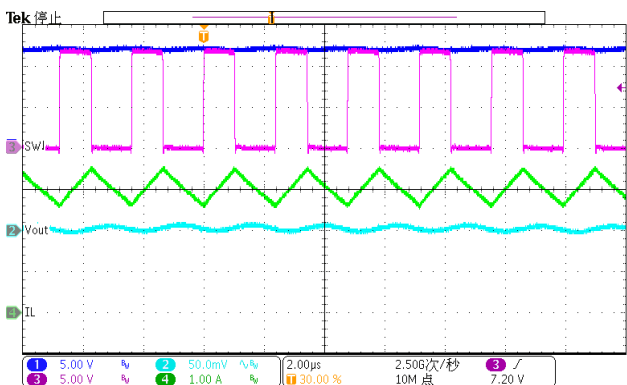
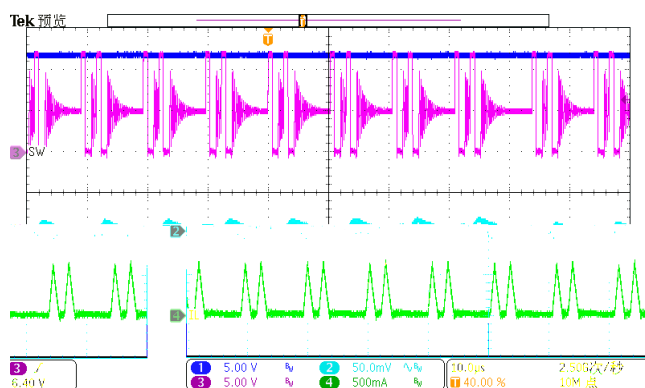
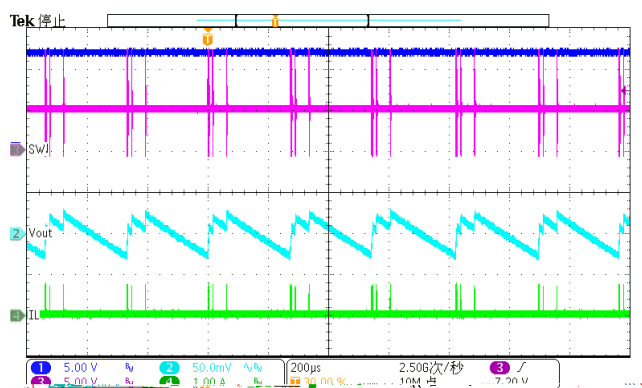
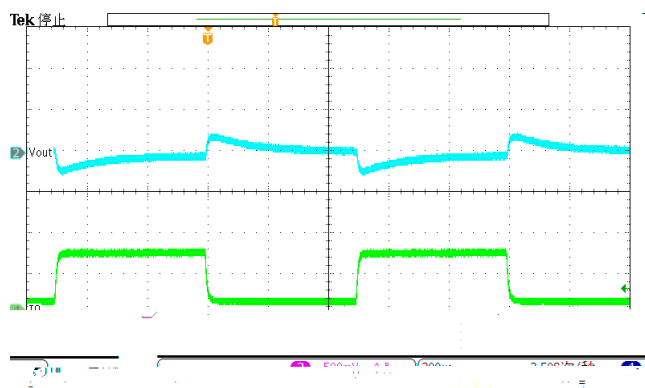
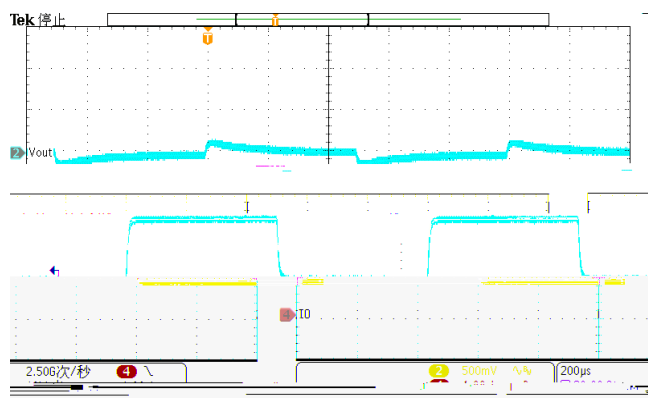
|  | HI L | 9LJ | L KLK, L H | L | PO, L H | L HP |  |  |  |
|--|------|-----|------------|---|---------|------|--|--|--|
|  |      |     |            |   |         |      |  |  |  |
|  |      |     |            |   |         |      |  |  |  |
|  |      |     |            |   |         |      |  |  |  |
|  |      |     |            |   |         |      |  |  |  |

□

□

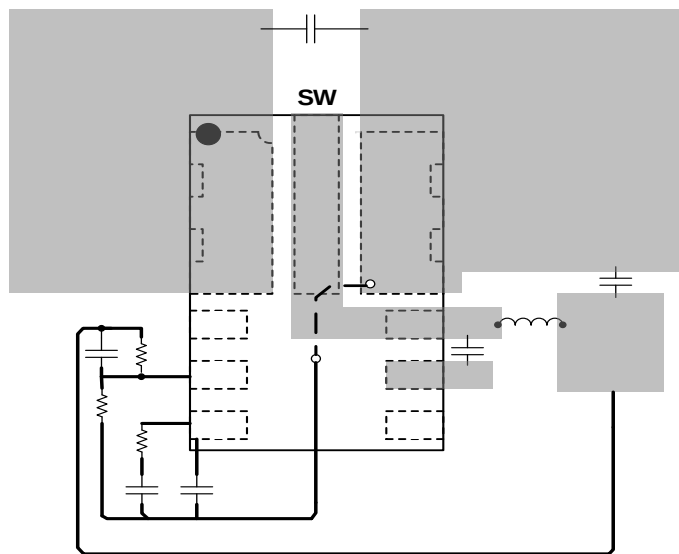
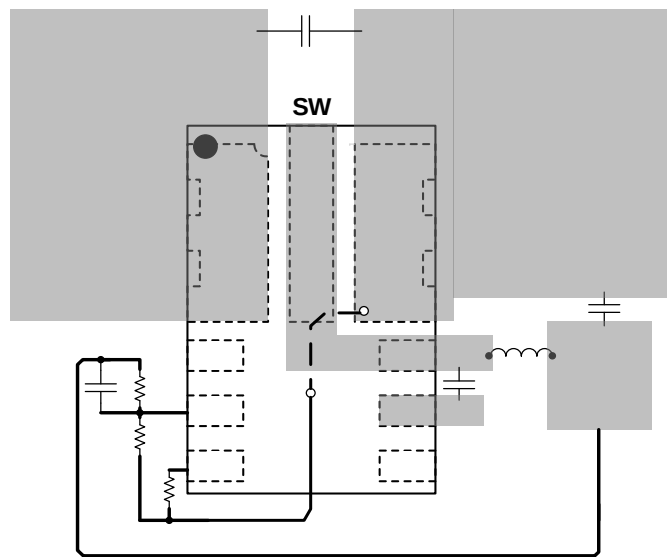


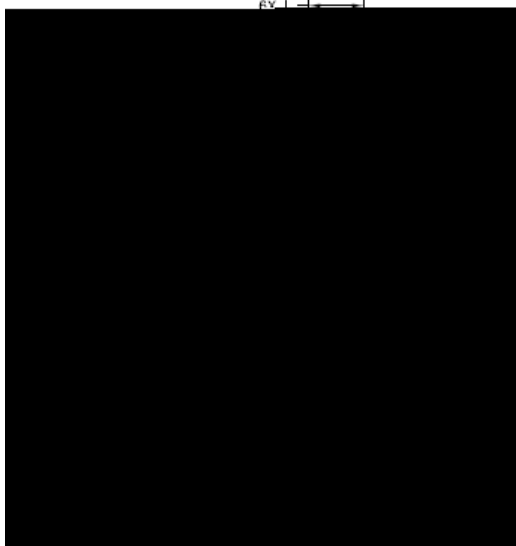
( RHP H LM J P LK



### 3H . R L P L

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.



[illegible]

- 1.
- 2.
- 3.
- 4.

:

: 4) 63