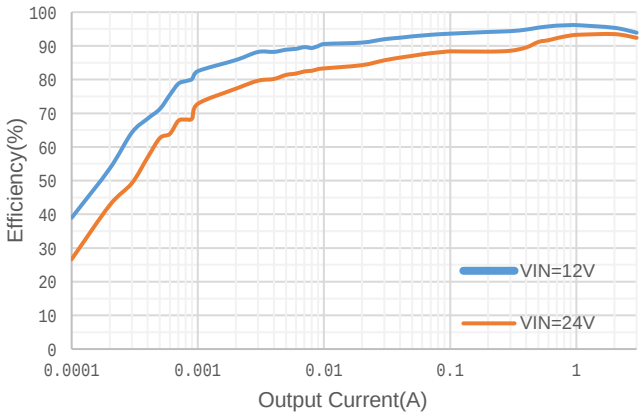
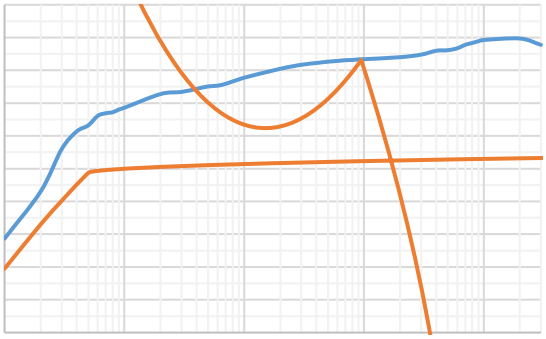
ORDERABLE DEVICE	PACKAGING TYPE	STANDARD PACK QTY	PACKAGE MARKING	PINS	PACKAGE DESCRIPTION	MSL
7			7		7	

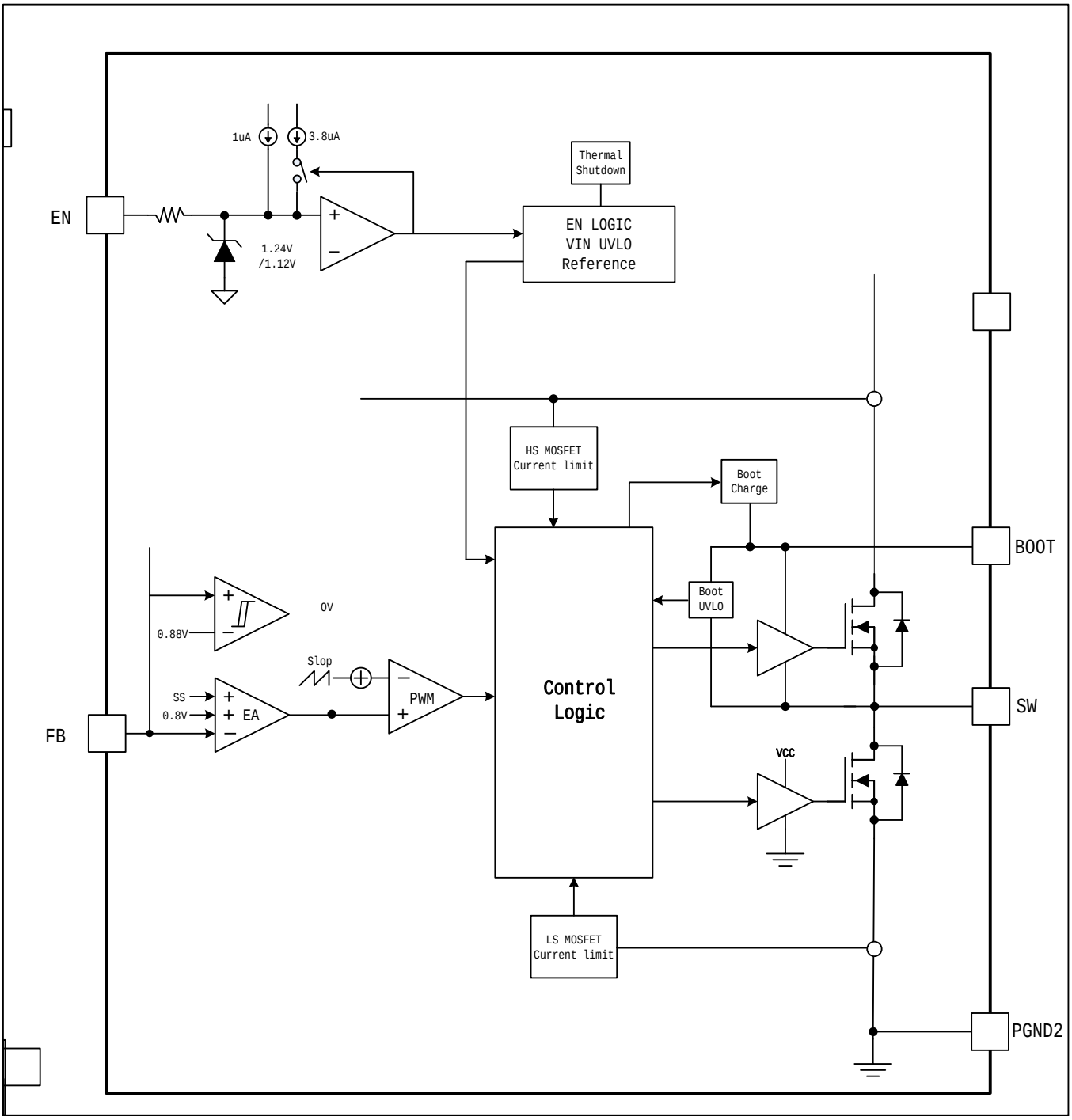
DESCRIPTION **MIN**

SYMBOL	PARAMETER	TEST CONDITION	MIN	TYP	MAX	UNIT
Power Supply						
			7		7	
				7 7	7	

SYMBOL	PARAMETER	TEST CONDITION	MIN	TYP	MAX	UNIT
				7		
Protection						


100
90
80
70
60
50
40
30
20
10
0
Efficiency(%)
0.0001
0.001
0.01
0.1
1
Output Current(A)
VIN=12V
VIN=24V




1uA
3.8uA
Thermal Shutdown
EN
1.24V /1.12V
EN LOGIC VIN UVLO Reference
HS MOSFET Current limit
Boot Charge
BOOT
Boot UVLO
OV
0.88V
Slop
SS
0.8V
EA
PWM
Control Logic
SW
FB
VCC
LS MOSFET Current limit
PGND2

Overview

7 7 7 7
7

7

7

7

7

Peak Current Mode Control

7

SILICON CONTENT TECHNOLOGY

Enable and Under Voltage Lockout Threshold

7 7

7



Fsw	R_6 (R_{FSW})
7	
7	

Over Current Limit and Hiccup Mode

The inductor current is monitored during high-side MOSFET Q1 and low-side MOSFET Q2 on. The SCT2434DQ implements over current protection with cycle-by-cycle limiting high-side MOSFET peak current and low-side MOSFET valley current to avoid inductor current running away during unexpected overload or output hard short condition.

77 G H Y L F S

7

Thermal Shutdown

7

Typical Application

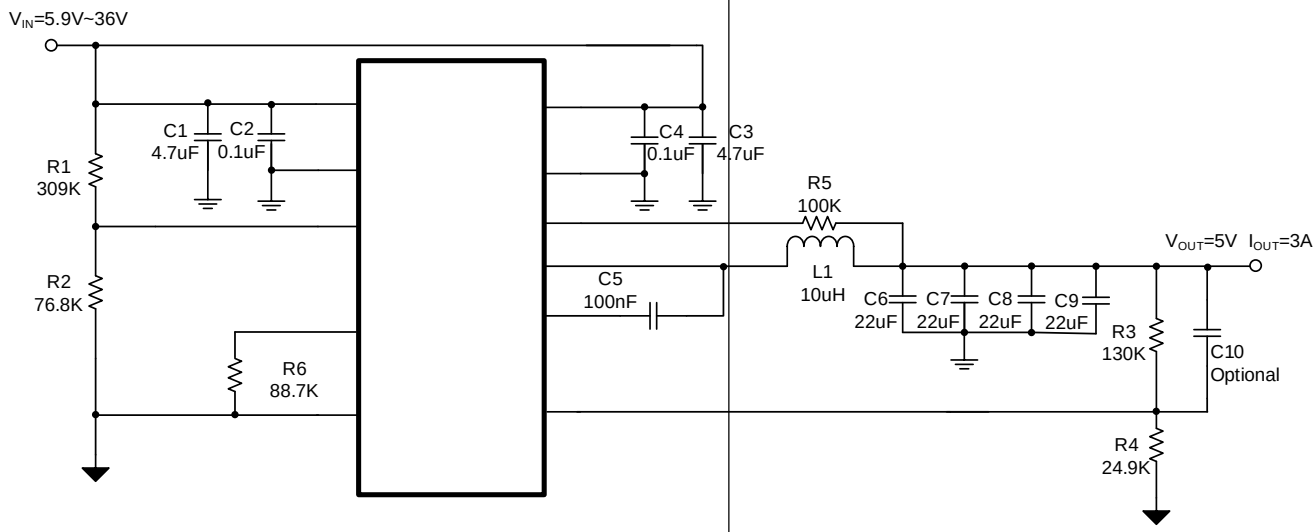


Figure 11. SCT2434DQ Design Example, 5V Output with Adjustable UVLO

Design Parameters

Design Parameters	Example Value
	7
	7

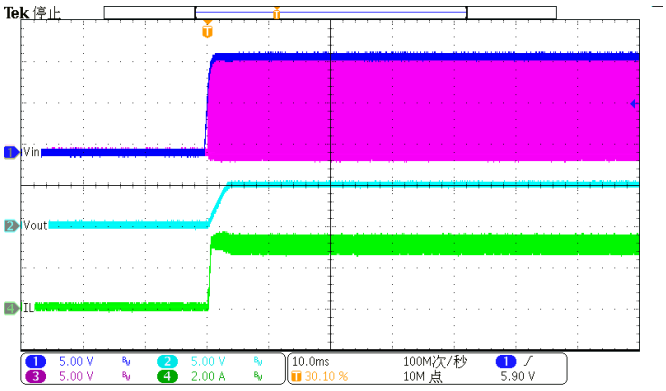
Output Voltage

7

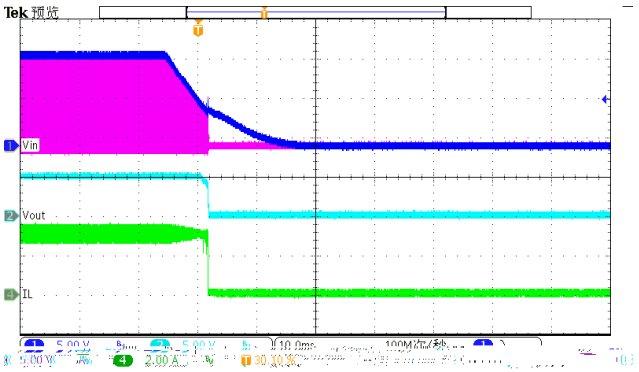
7

7

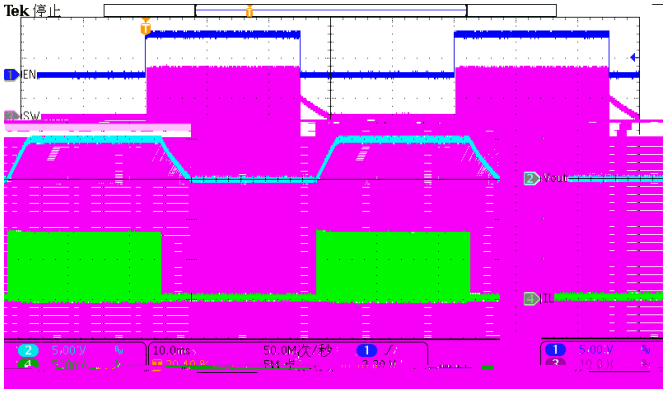
Application Waveforms

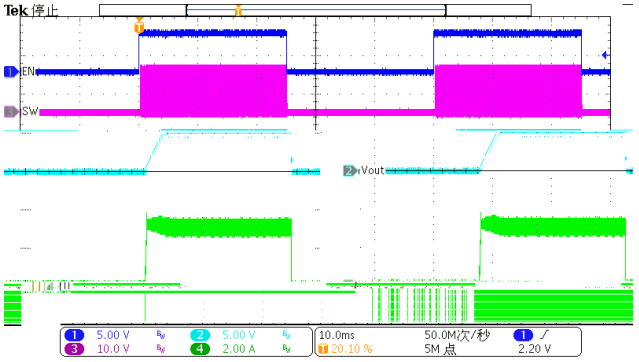


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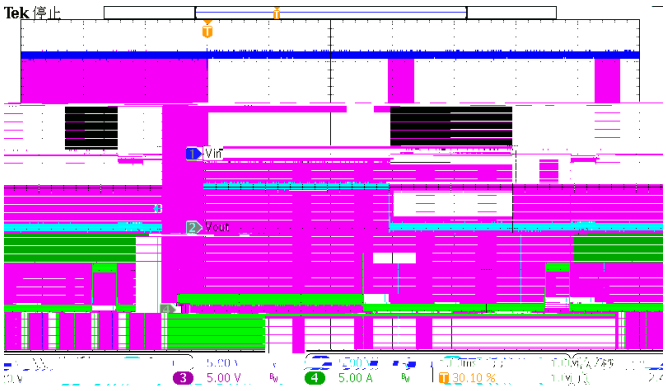


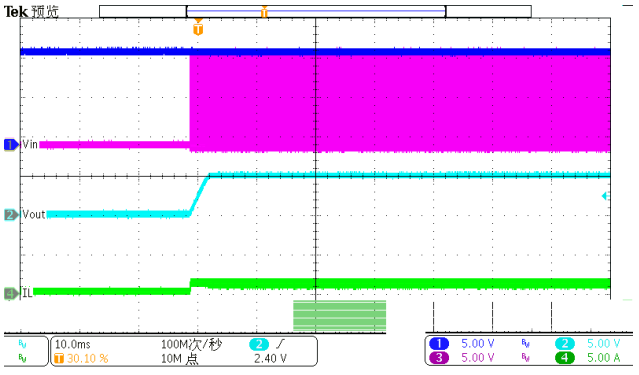
7 7





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Layout Guideline

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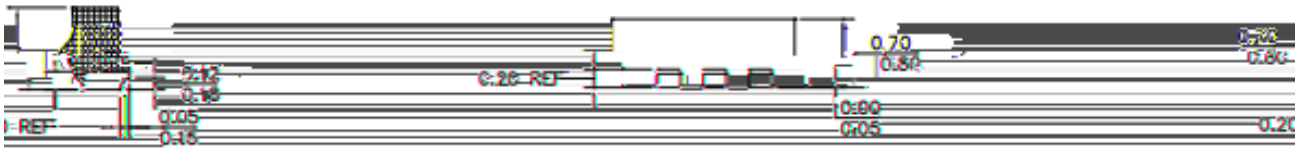
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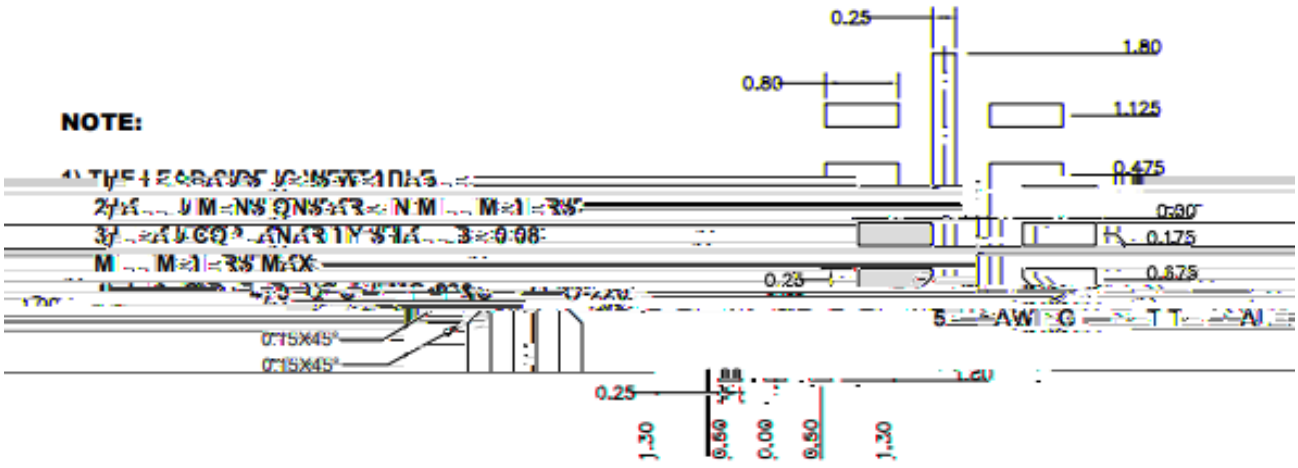


BOTTOM VIEW

TOP VIEW

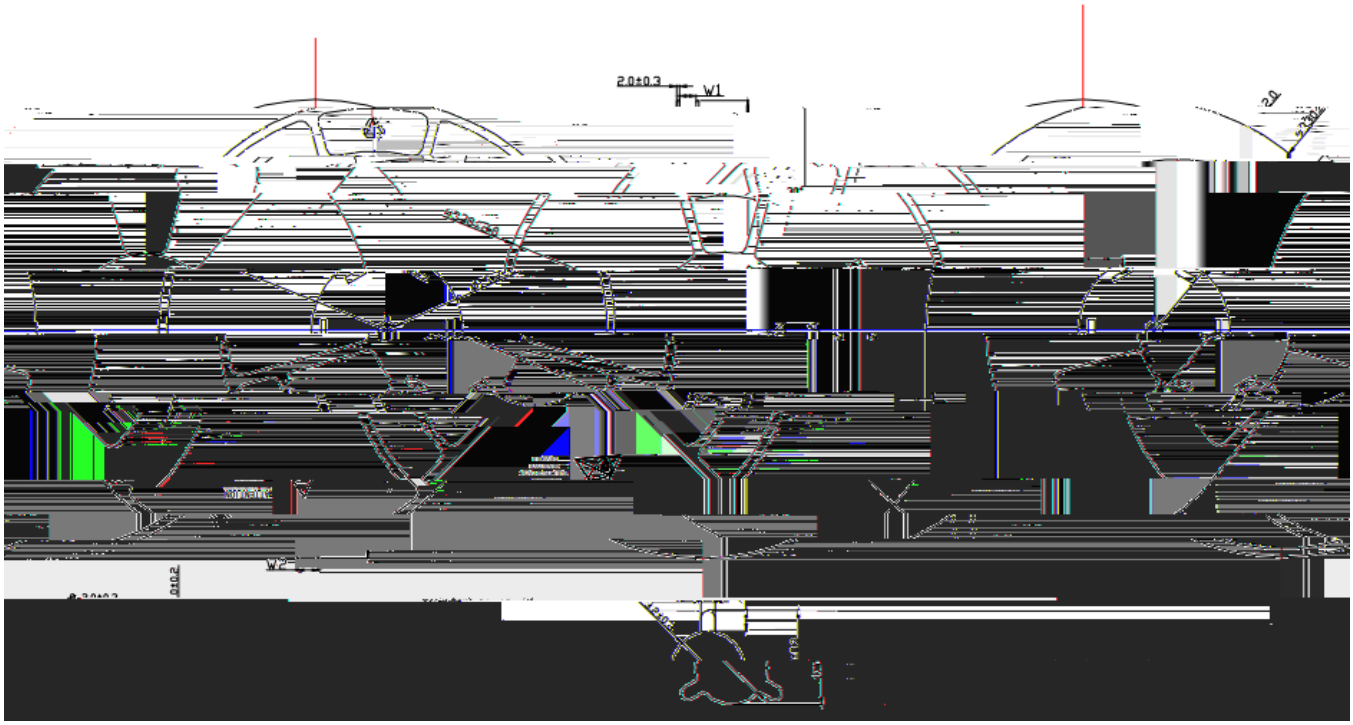


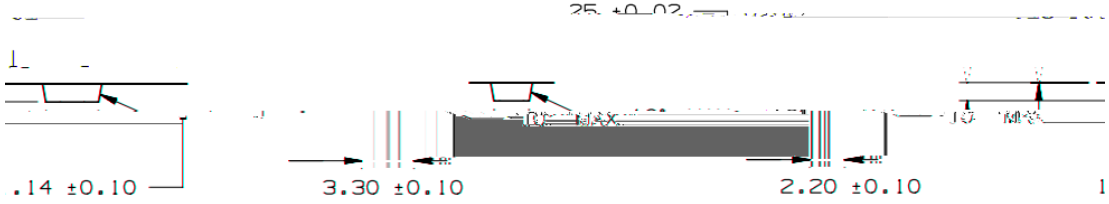
SIDE VIEW



NOTE:

RECOMMENDED LAND PATTERN




.14 ±0.10
3.30 ±0.10
2.20 ±0.10