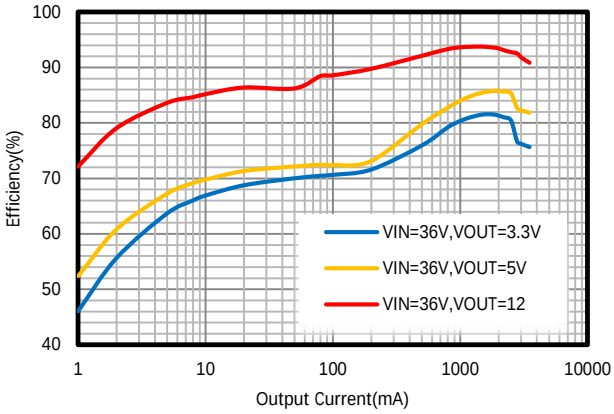
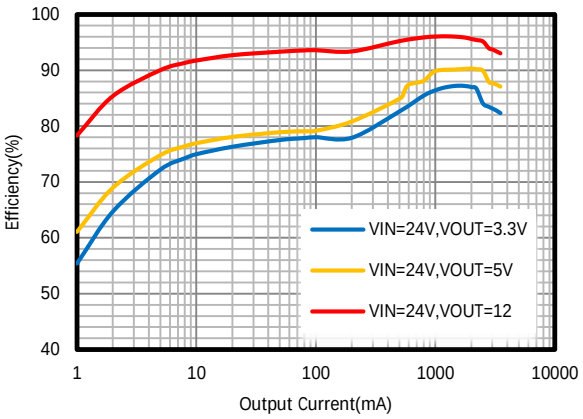
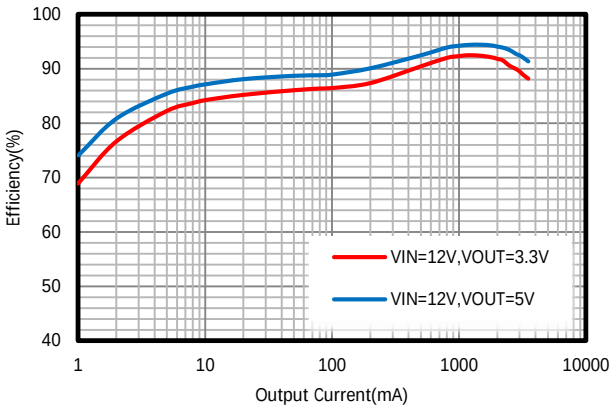
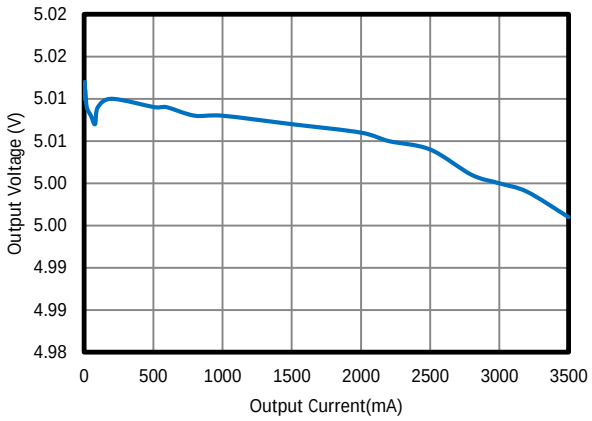
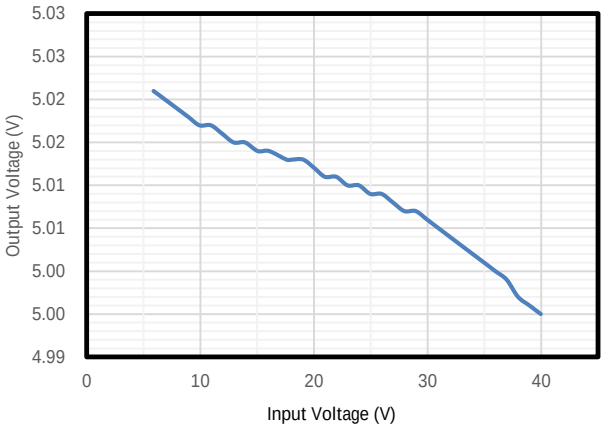
TYPICAL CHARACTERISTICS

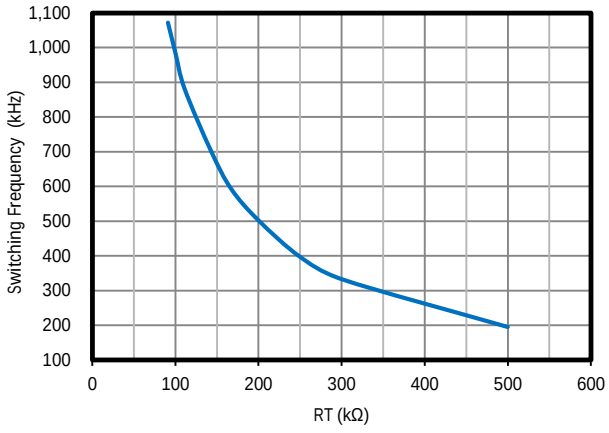


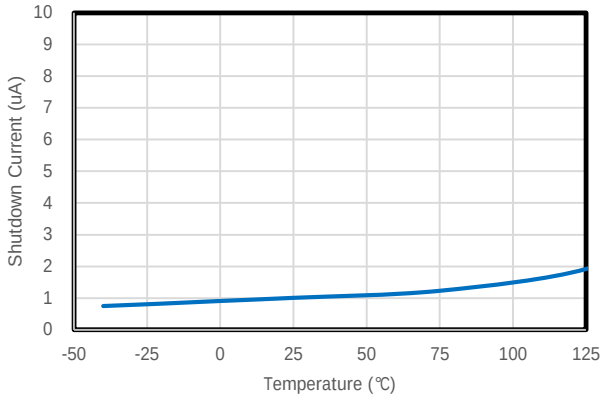












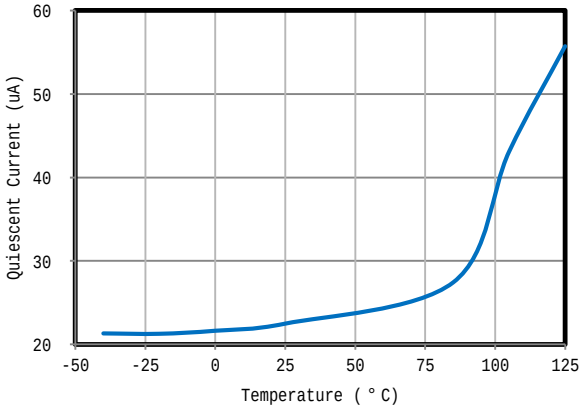
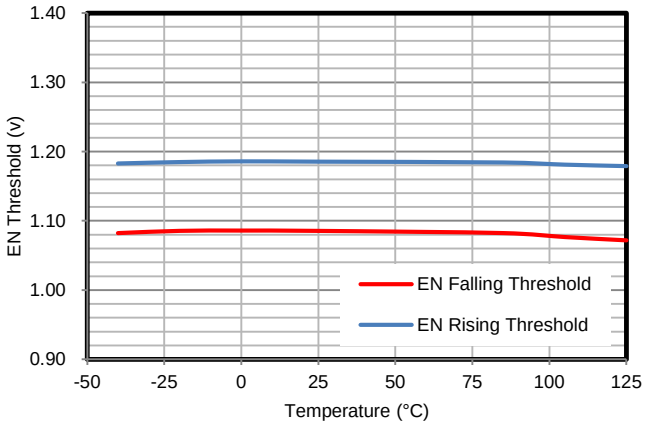
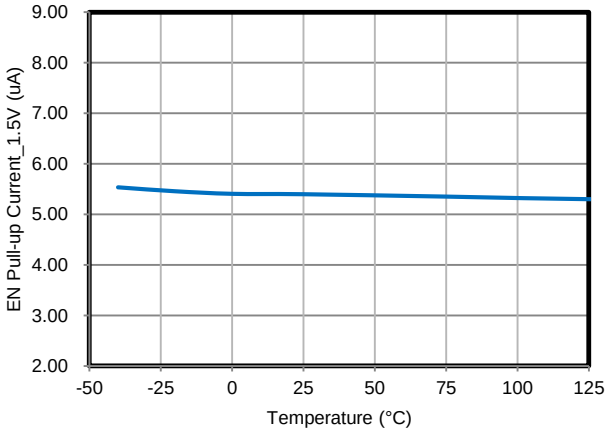
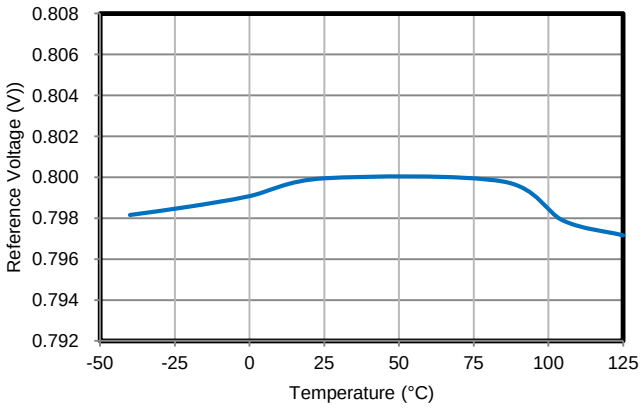
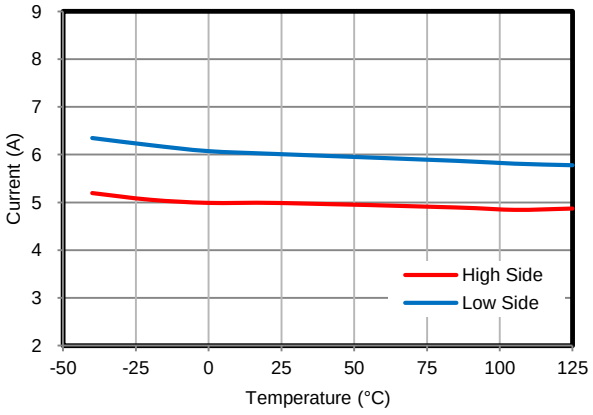


Figure 10. Quiescent Current vs Temperature

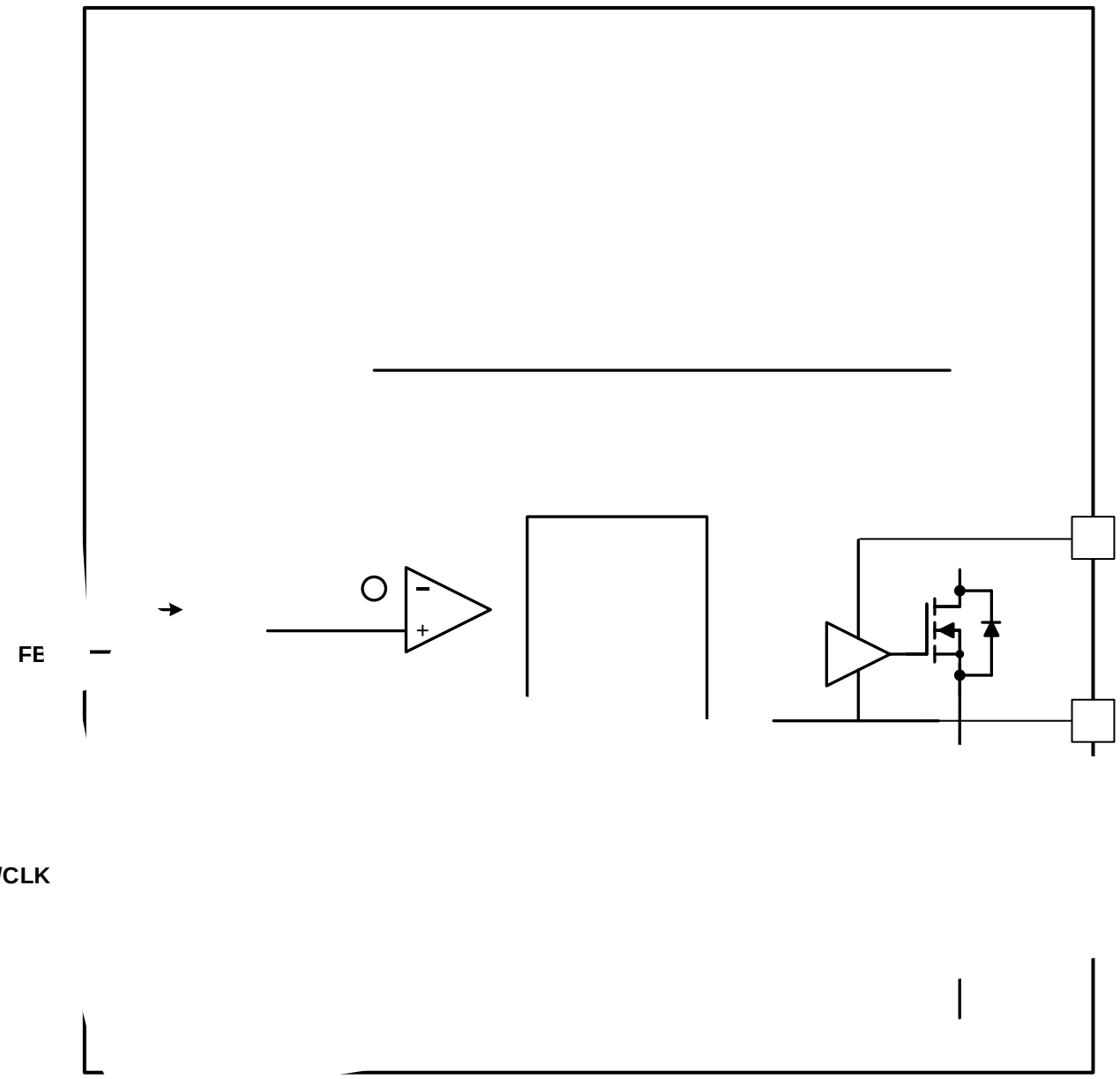






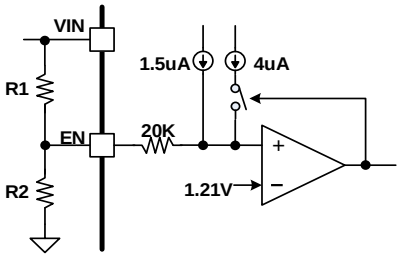


FUNCTIONAL BLOCK DIAGRAM



OPERATION

Overview

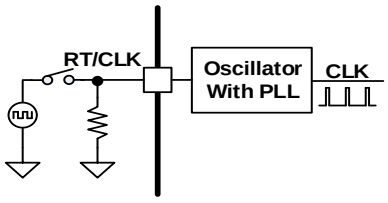


Output Voltage

1% tolerance

Internal Soft-Start

Switching Frequency and Clock Synchronization



Frequency Spread Spectrum

Bootstrap Voltage Regulator and Low Drop-out Operation

Over Current Limit and Hiccup Mode

APPLICATION INFORMATION

Typical Application

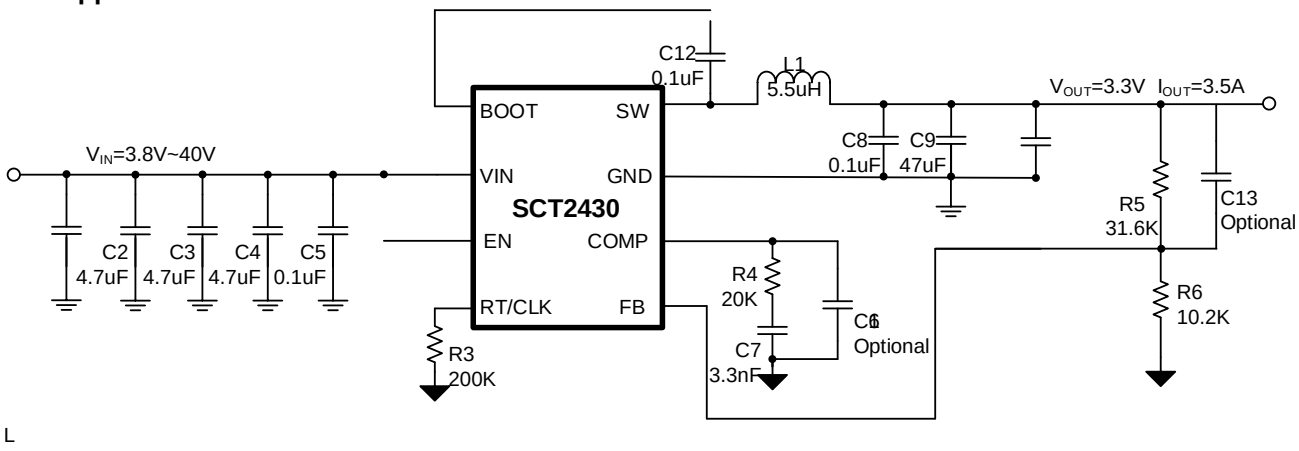


Figure 19. SCT2430 Design Example, 3.3V Output with Programmable UVLO

Design Parameters

Design Parameters	Example Value

Output Voltage

V_{OUT}	R_5	R_6

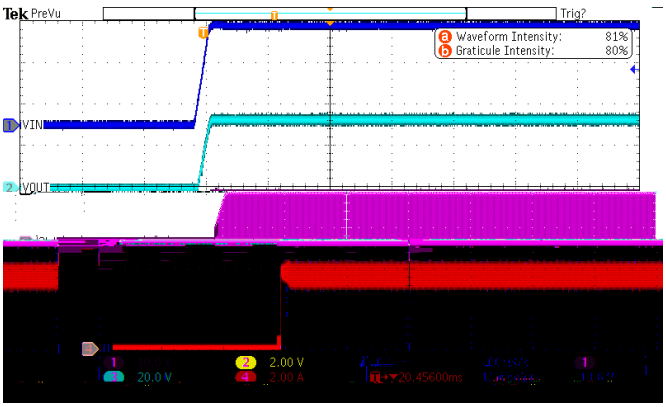
Switching Frequency

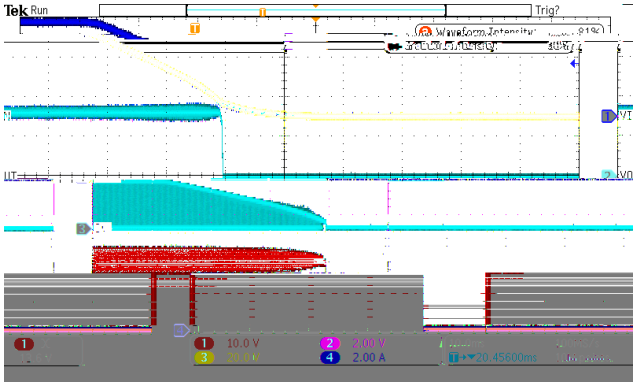
Compensation Components

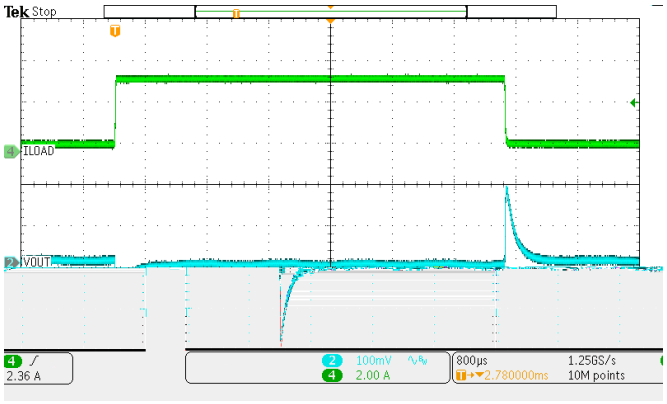
Table 3: Compensation Values for Typical Output Voltage/Capacitor Combinations at fsw=500KHz

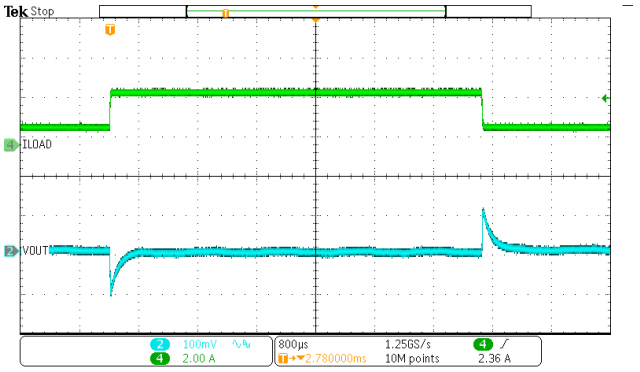
Vout	L1	COUT	R4	C7	C6
1.8V	3.3uH	2*47uF	12.1K	6.8nF	100pF(optional)
2.5V	4.7uH	2*47uF	16.9K	4.7nF	68pF(optional)
3.3V	5.5uH	2*47uF	20K	4.7 nF	47pF(optional)
5V	7.8uH	2*47uF	33.2K	3.3nF	22pF(optional)
12V	10uH	2*47uF	53.6K	1nF	220pF

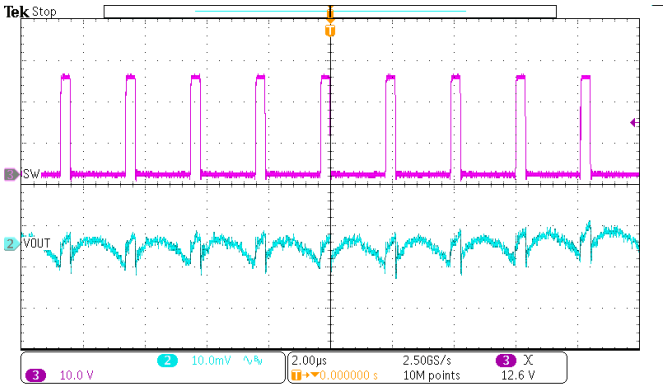
Application Waveforms

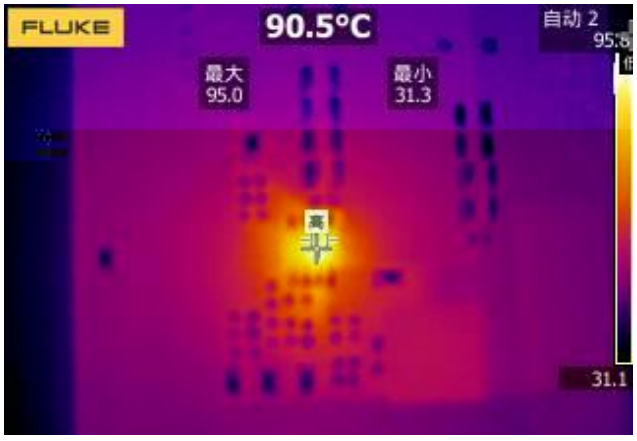












Layout Guideline

1.

2.

3.

4.

5.

6.

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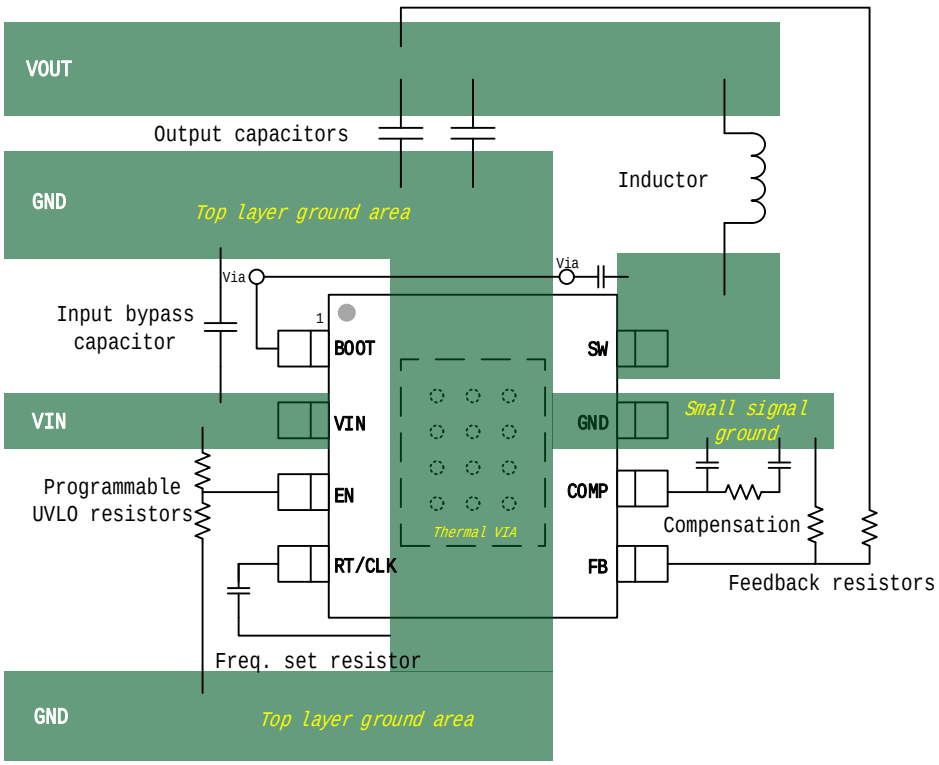
8.

9.

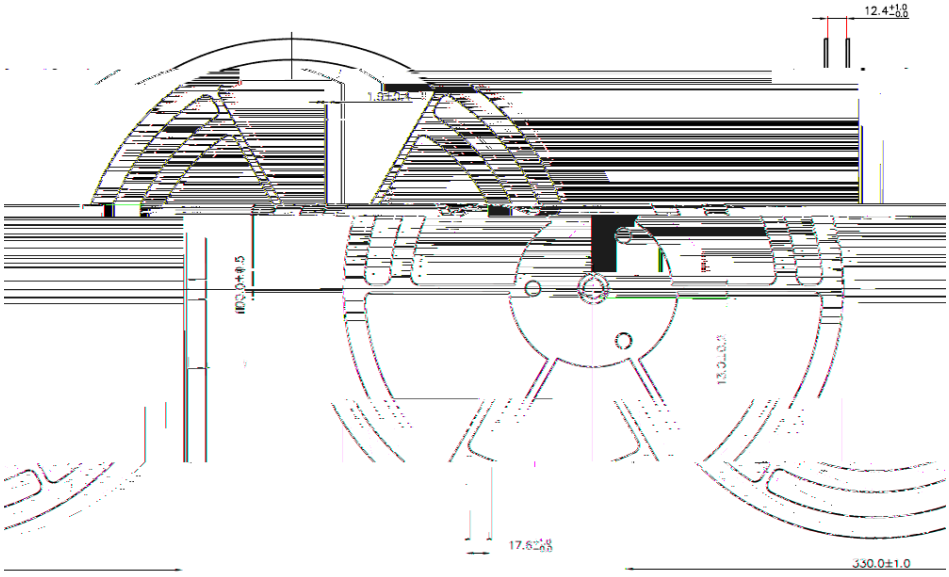


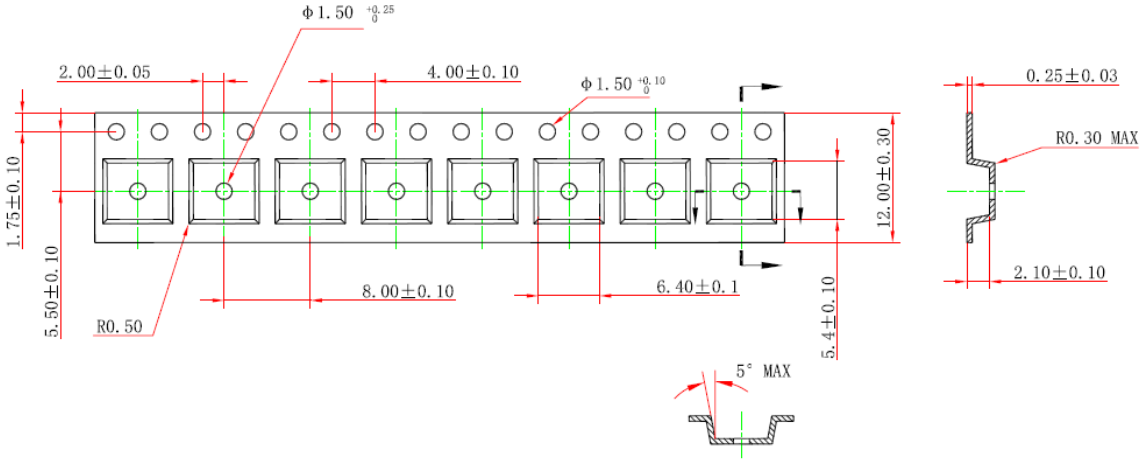
PACKAGE INFORMATION

NOTE:

1. ' U D Z L Q fàÜð € V À € D H Rc> P H • ` H ƒ @ € G — H 9 V V V Pr P 0 W `

TAPE AND REEL INFORMATION





RELATED PARTS

PART NUMBERS	DESCRIPTION	COMMENTS
SCT2450		
SCT2451	[redacted]	