

4.3V-60V Vin, 5A, High Efficiency Step-down DCDC Converter with Programmable Frequency

ED ST DR

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SCT2650B

DUHNMGHSN X

CDUBDN CD HMEN L SHNM

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

ARNKTSDL HL TL SHMFR

DESCRIPTION	MIN	MAX	UNIT

OHMBNMEHFT SHNM

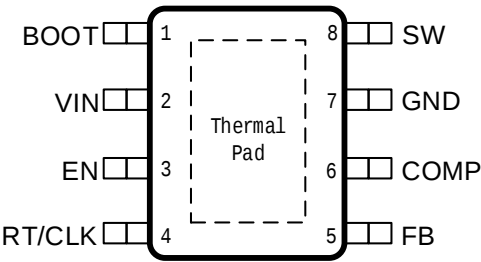


Figure 1. 8-Lead Plastic ESOP

DBNL L DMC DC NOD SHMF BNMCHSHMR

PARAMETER	DEFINITION	MIN	MAX	UNIT

DRC SHMFR

PARAMETER	DEFINITION	MIN	MAX	UNIT

(1)
(2)

SGD L KHMEN L SHNM

PARAMETER	THERMAL METRIC	ESOP-8L	UNIT

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DKDBS HB KBG BSD HRS HBR

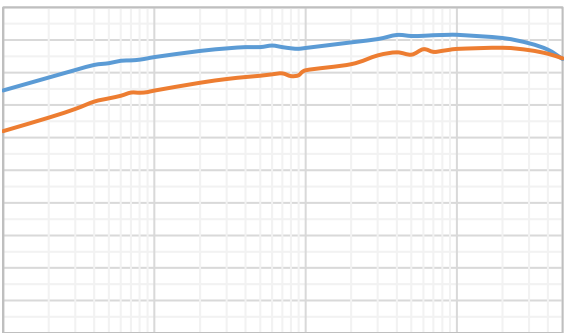
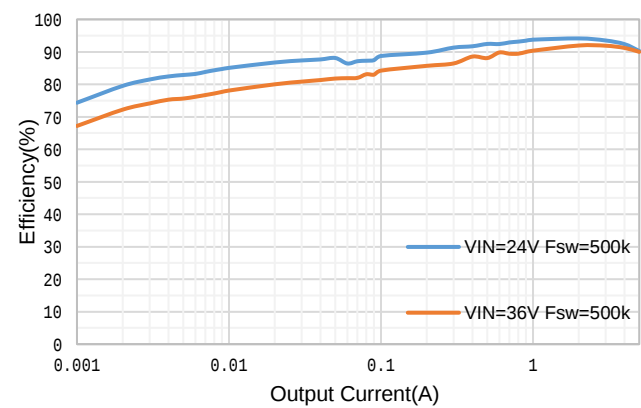
SYMBOL	PARAMETER	TEST CONDITION	MIN	TYP	MAX	UNIT
Power Supply						
Power MOSFETs						
Reference and Control Loop						
Current Limit and Over Current Protection						
T _{HIC_W}	Over current protection hiccup wait time			512		cycles
T _{HIC_R}						

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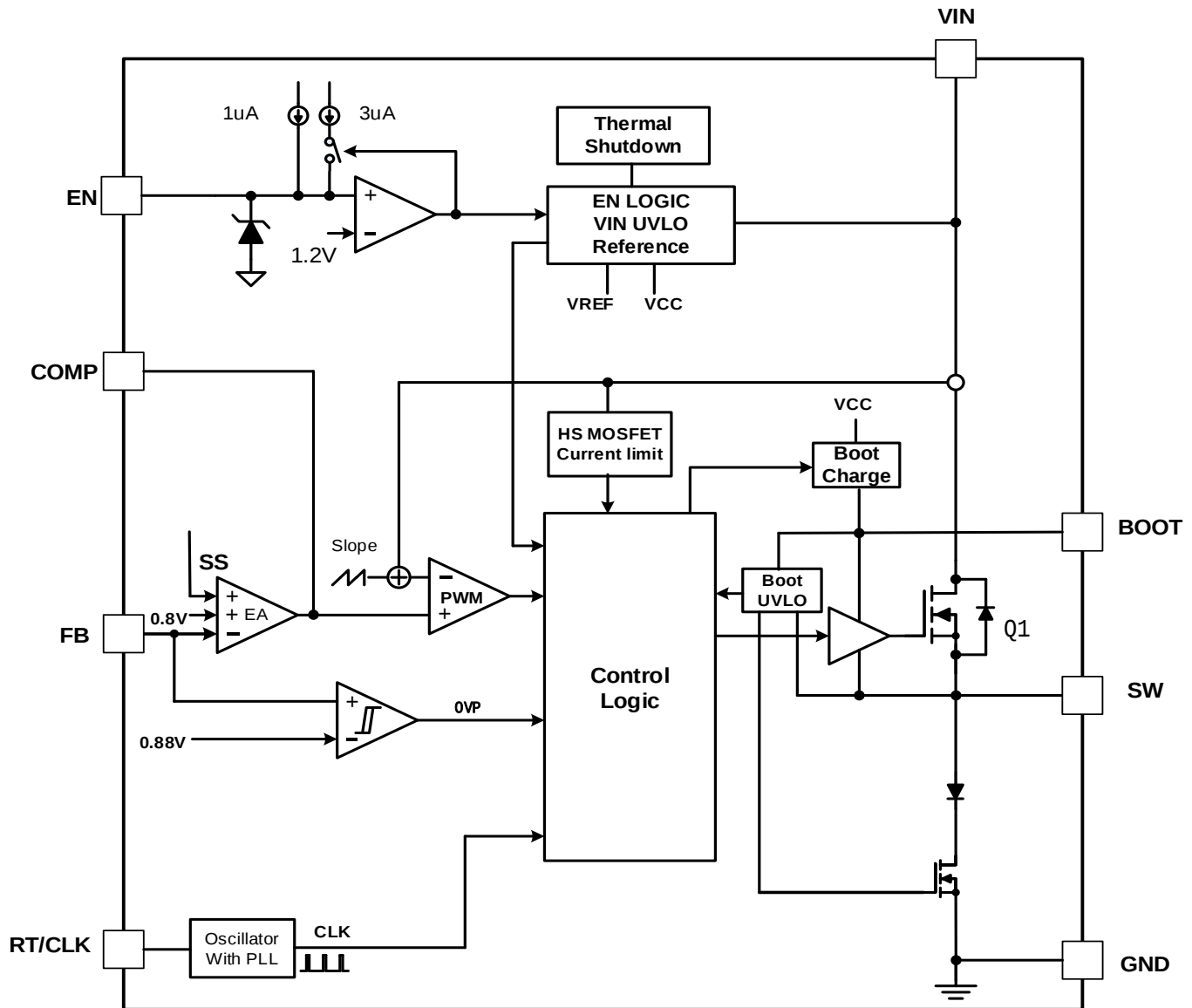
SYMBOL	PARAMETER	TEST CONDITION	MIN	TYP	MAX	UNIT

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SX0HB KBG BS D HS HBR



ETMBSHM KAKNB CHF





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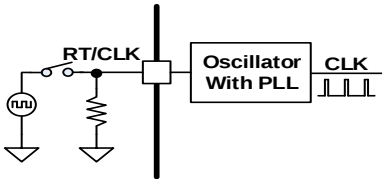
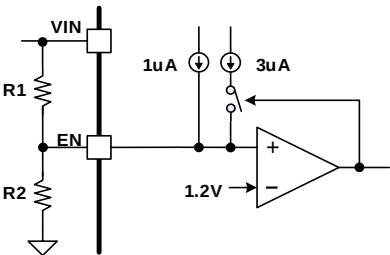
Output Voltage



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Internal Soft-Start

Switching Frequency and Clock Synchronization



Frequency Spread Spectrum

Linear Frequency Reduction

Bootstrap Voltage Regulator and Low Drop-out Operation

Over Current Limit and Hiccup Mode

Diode Selection

Input Capacitor Selection

Bootstrap Capacitor Selection

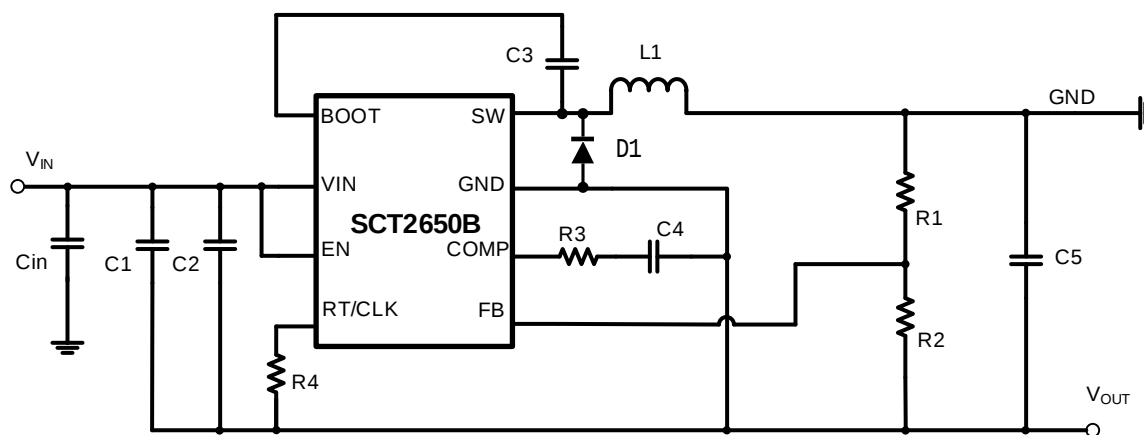
Output Capacitor Selection

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Table 3: Compensation Values for Typical Output Voltage/Capacitor Combinations

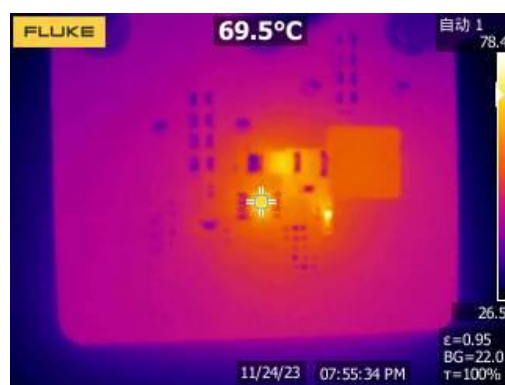
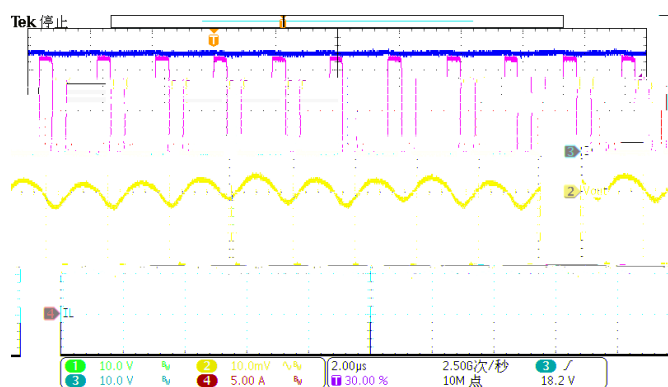
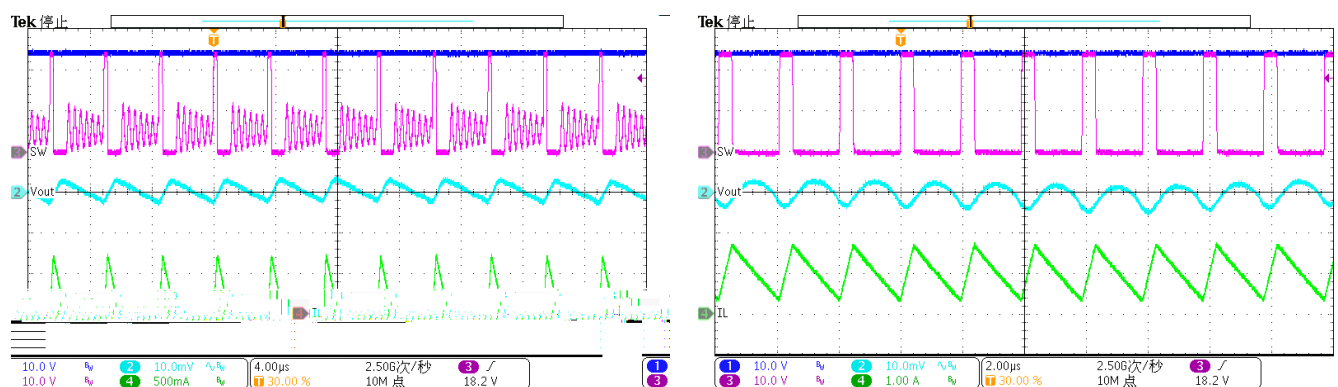
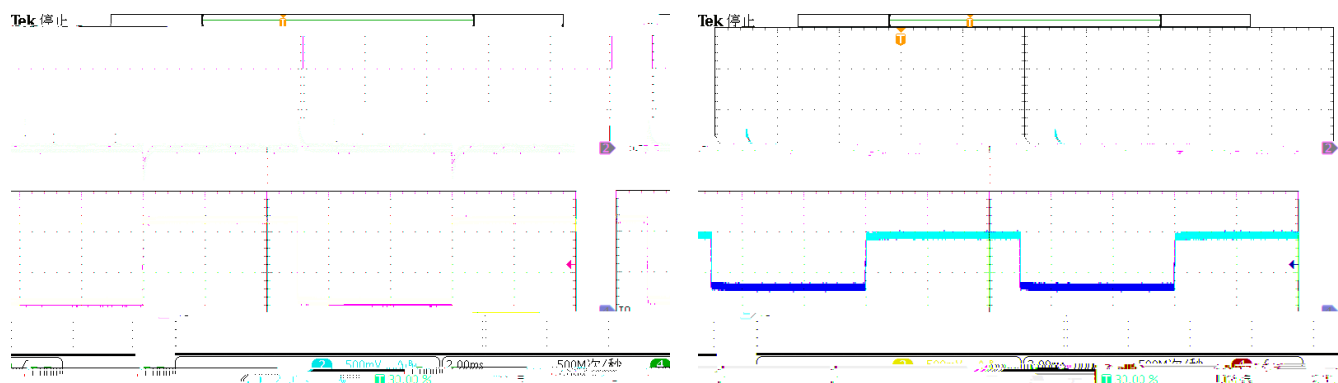
Inverting Power application



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Application Waveforms

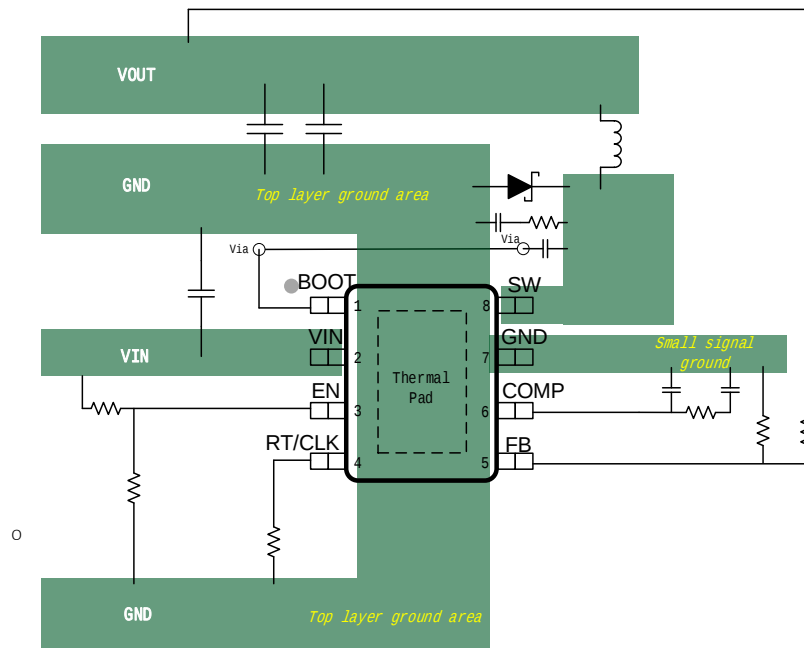
Application Waveforms



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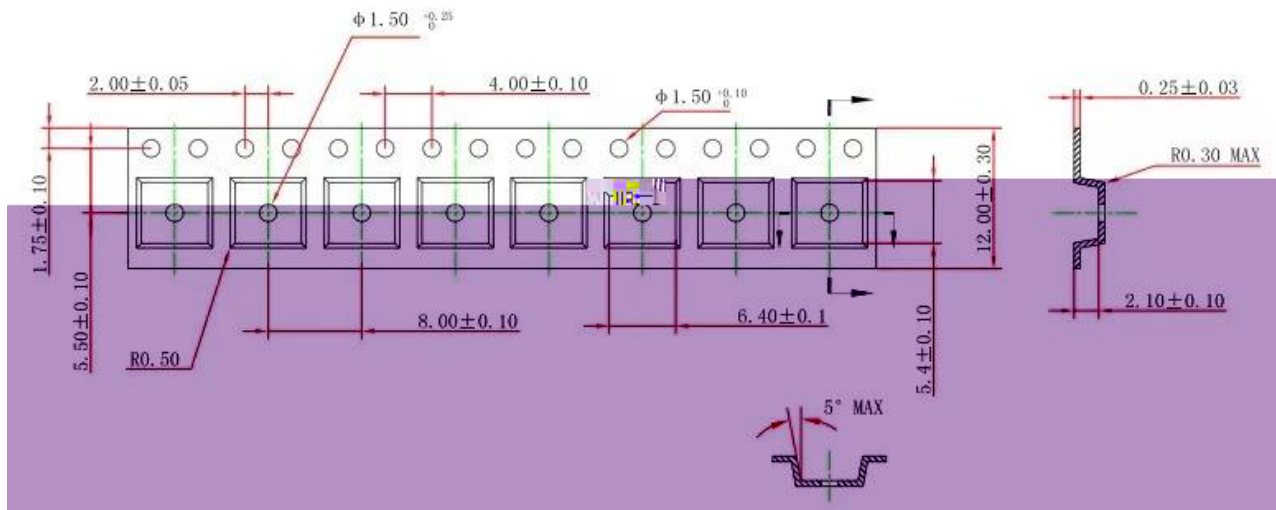
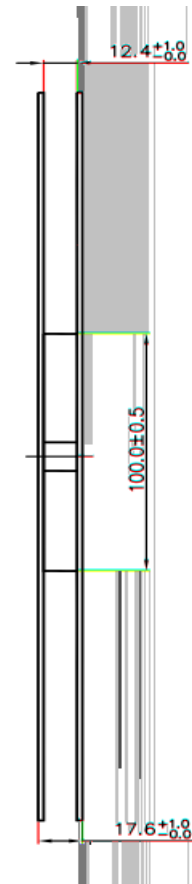
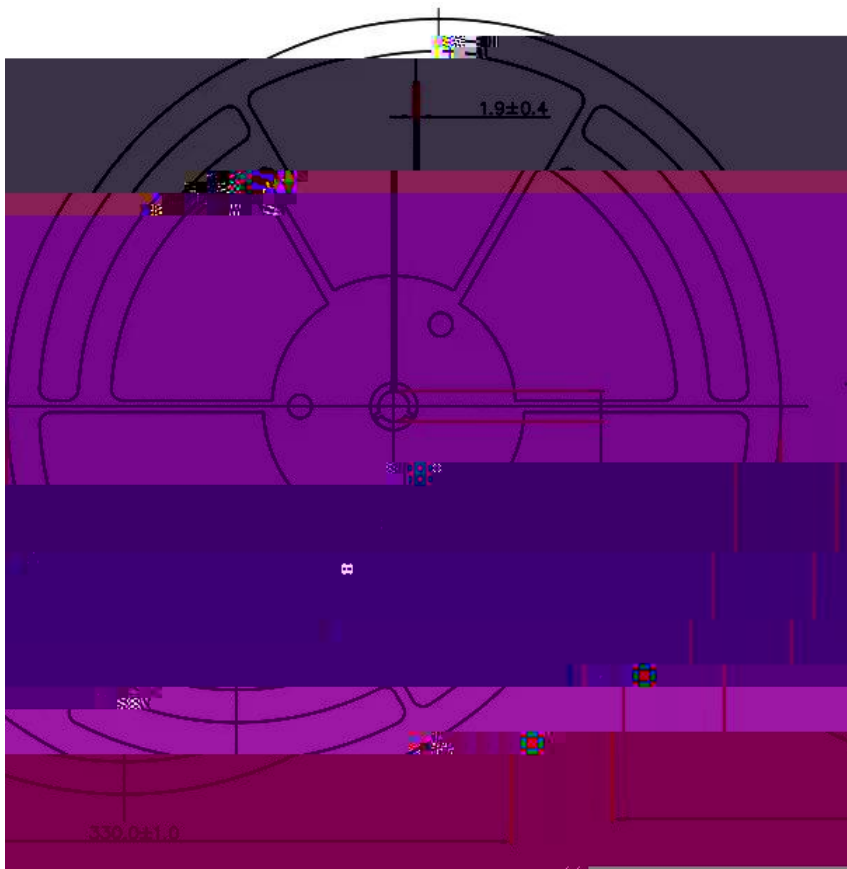
Layout Guideline

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- 8.
- 9.
- 10.



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S OD MC DDKHMEN L SHNM



NOTICE: