



SCT2230A

Rev. 1.7



SCT2230A

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



NAME	PIN	PIN FUNCTION
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SCT2230A

SYMBOL	PARAMETER	TEST CONDITION	MIN	TYP	MAX	UNIT
Power Supply and Output						
Enable, Soft Start and Working Modes						

SCT2230A

Under Voltage Lockout UVLO

Enable and Start up

Over Current Protection (OCP) and Hiccup Mode

Bootstrap Voltage Regulator

Thermal Shutdown

Typical Application

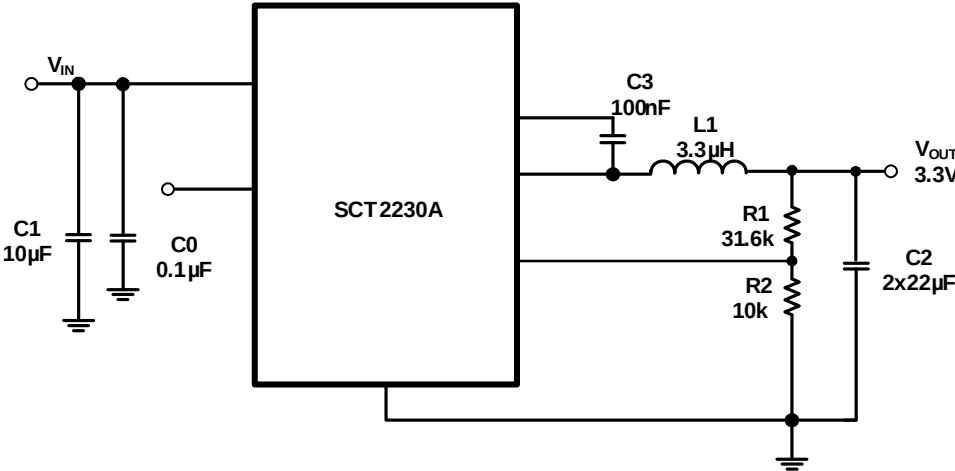


Figure 8. 12V Input, 3.3V/3A Output

Design Parameters

Design Parameters	Example Value

Input Capacitor Selection

Δ =

Output Feedback Resistor Divider Selection

$$V_1 = \frac{(V_{in} - V_{out}) \times R_2}{R_1 + R_2}$$

Table 2. Recommended Component Selections

Output Voltage (V)	R1 (kΩ)	R2 (kΩ)	L (μH)	C1 (μF)	C2 (μF)	C3 (nF)
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Application Waveforms

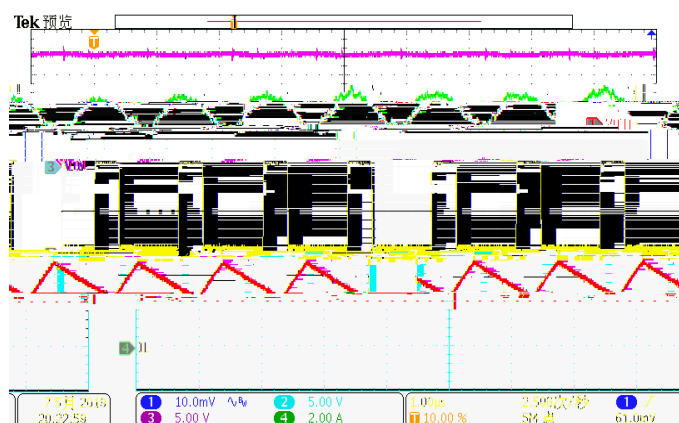


Figure 9. SW node waveform and Output Ripple
VIN=12V, IOUT=3A

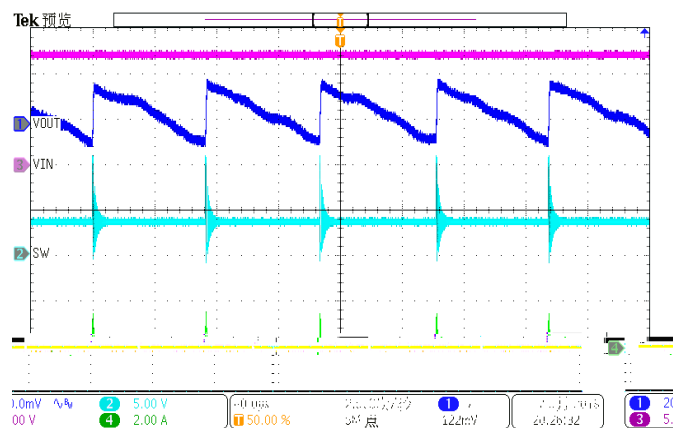


Figure 10. SW node Waveform and Output Ripple
VIN=12V, IOUT=10mA

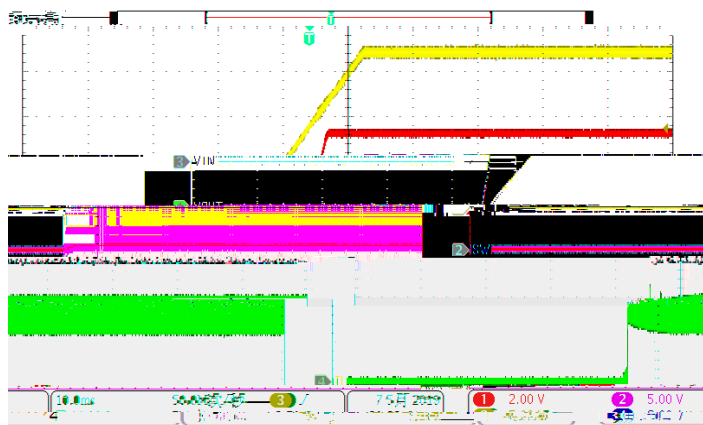


Figure 11. Power Up
VIN=12V, VOUT=3.3V, IOUT=3A

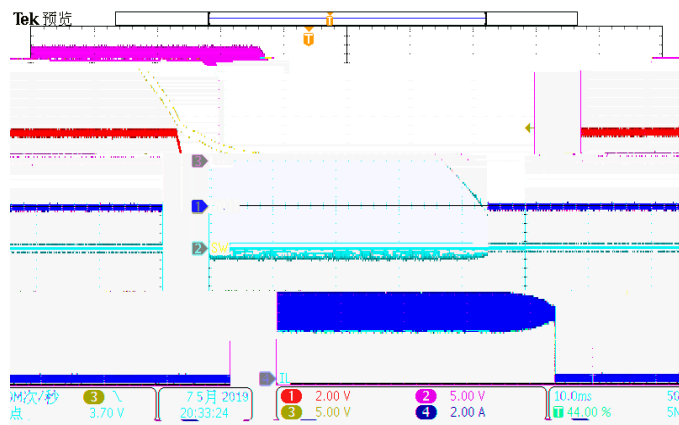


Figure 12. Power Down
VIN=12V, VOUT=3.3V, IOUT=3A

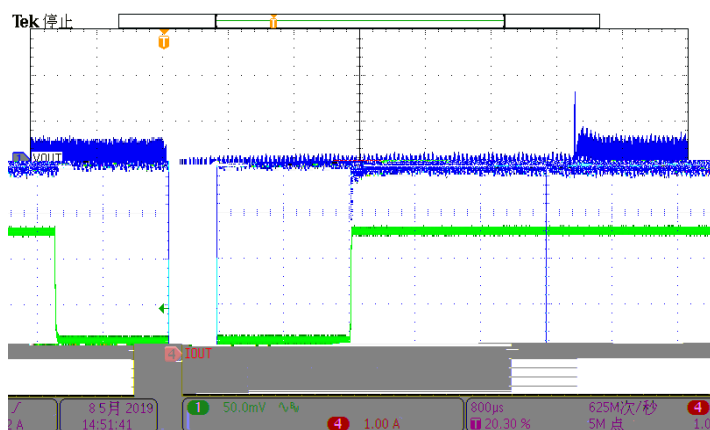


Figure 13. Load Transient
VOUT=3.3V, IOUT=0.3A to 2.7A, SR=250mA/µs

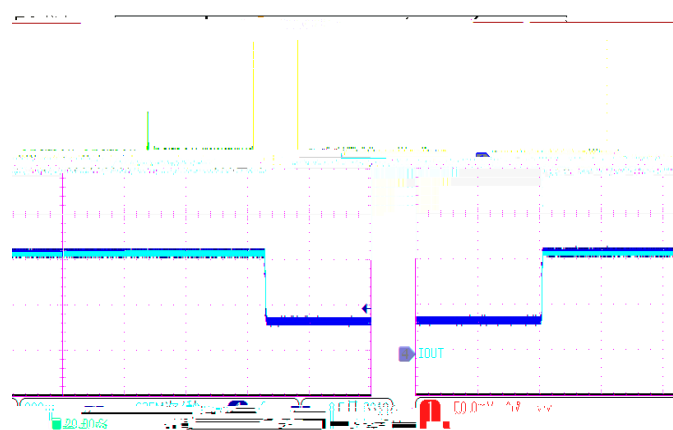


Figure 14. Load Transient
VOUT=3.3V, IOUT=0.75A to 2.25A, SR=250mA/µs

Layout Guideline

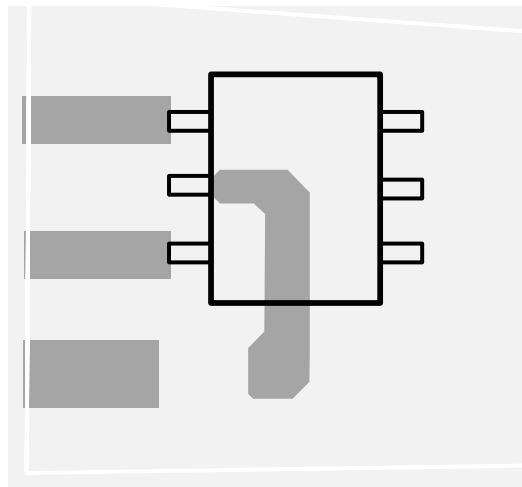


Figure 15. PCB Layout Example

Thermal Considerations

NOTE: