PIN FUNCTIONS

NAME	NO.	I/O(1)	PIN FUNCTION

THERMAL INFORMATION

PARAMETER	THERMAL METRIC	QFN-20L	UNIT

RECOMMENDED OPERATING CONDITIONS

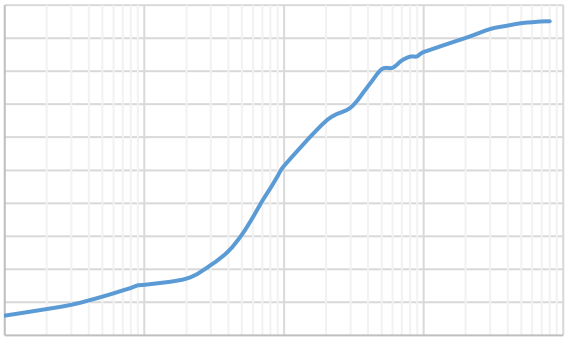
PARAMETER	DEFINITION	MIN	MAX	UNIT

SYMBOL	PARAMETER	TEST CONDITION	MIN	TYP	MAX	UNIT

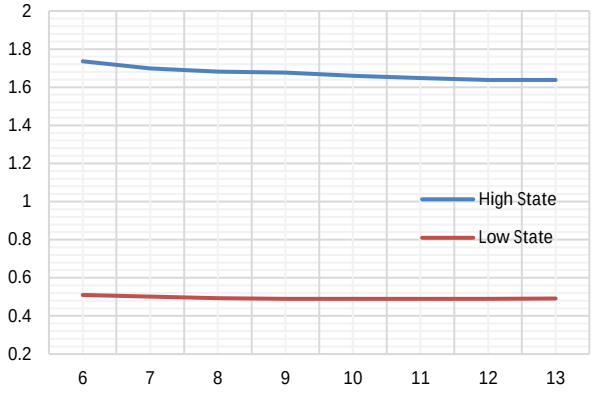
SYMBOL PARAMETER

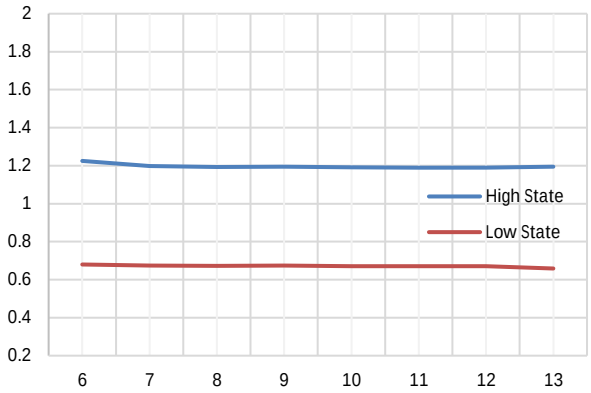
SYMBOL	PARAMETER	TEST CONDITION	MIN	TYP	MAX	UNIT
Thermal Shutdown						

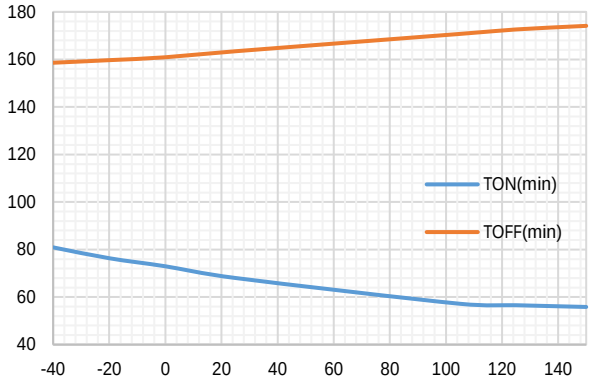
TYPICAL CHARACTERISTICS



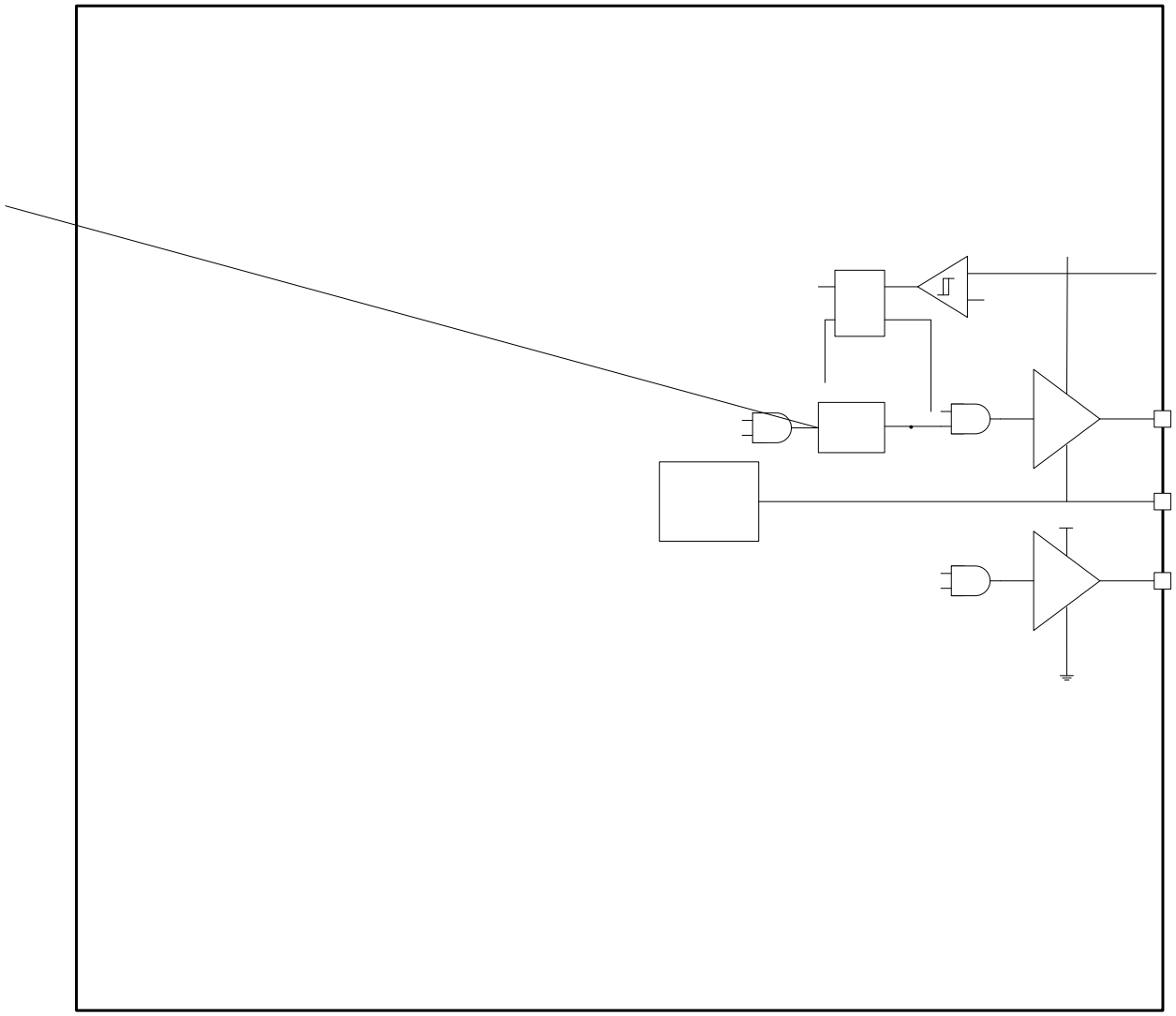
TYPICAL CHARACTERISTICS





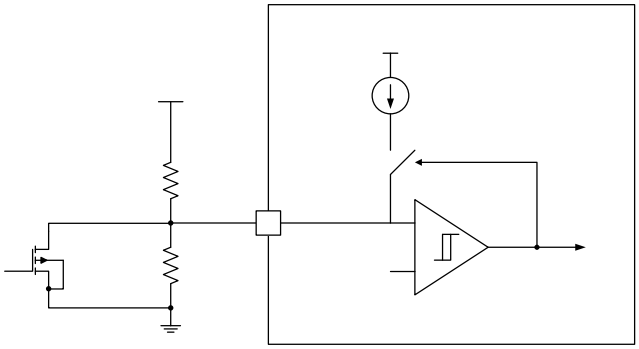


FUNCTIONAL BLOCK DIAGRAM



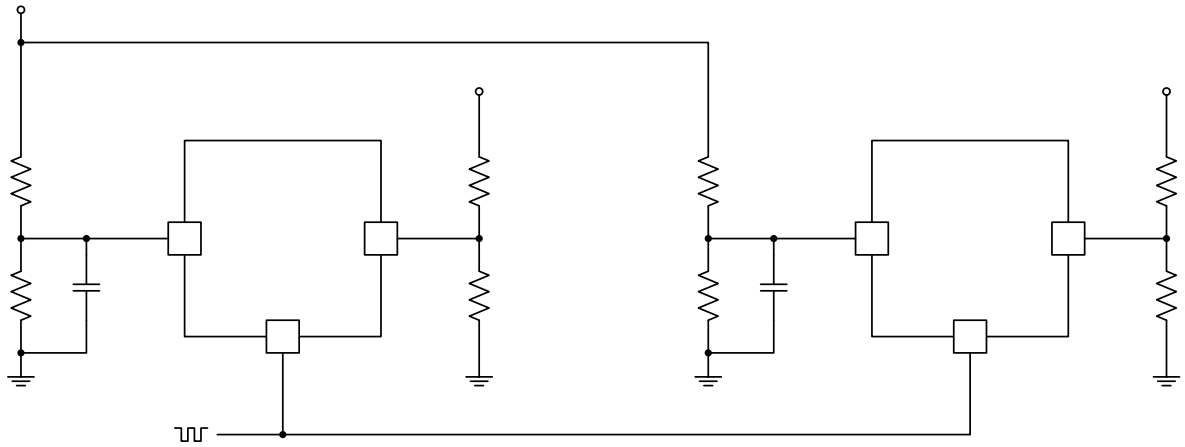
OPERATION

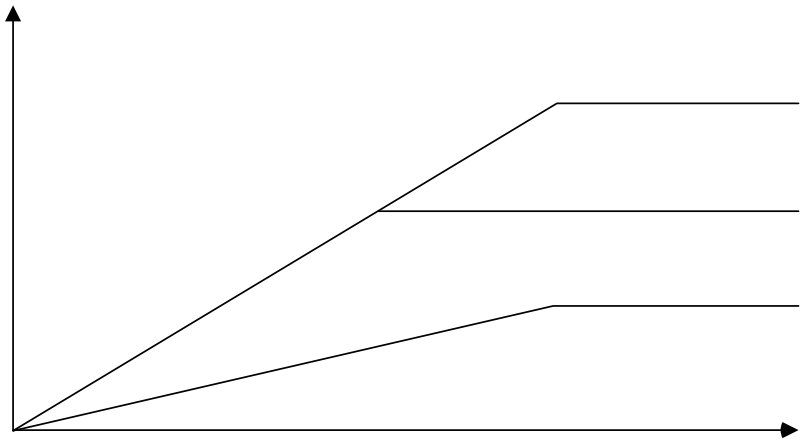
Overview



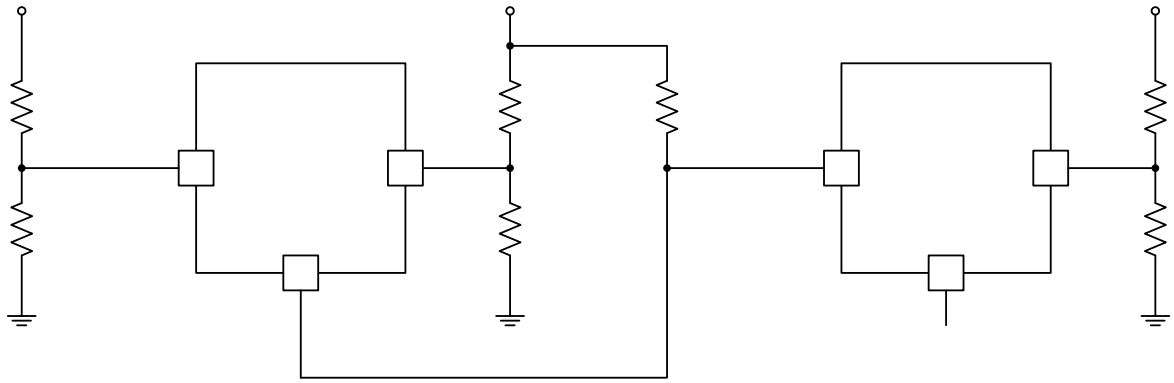
Soft Start and Voltage Tracking

e



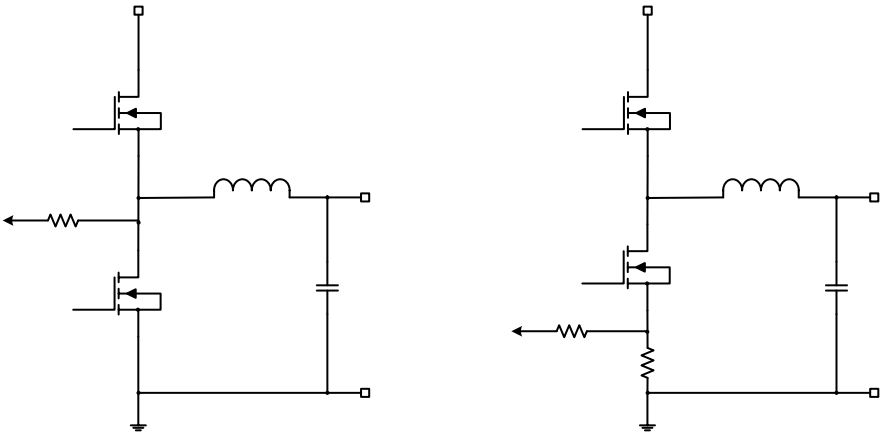


Power Good Monitor PGOOD



Switching Frequency and Clock Synchronization

Switching Frequency (kHz)	Frequency Set Resistance (kΩ)



Device Functional Modes

Shutdown Mode

Standby Mode

Active Mode

Diode Emulation Mode

Thermal Shutdown

D V

$\omega_{z1} = K \cdot \omega_o$, $\omega_{z2} = \omega_o$, $\omega_{p1} = \omega_{SW/2}$, $\omega_{p2} = \omega_{ESR}$

APPLICATION INFORMATION

Typical Application

Application Waveforms(continued)

Typical Application

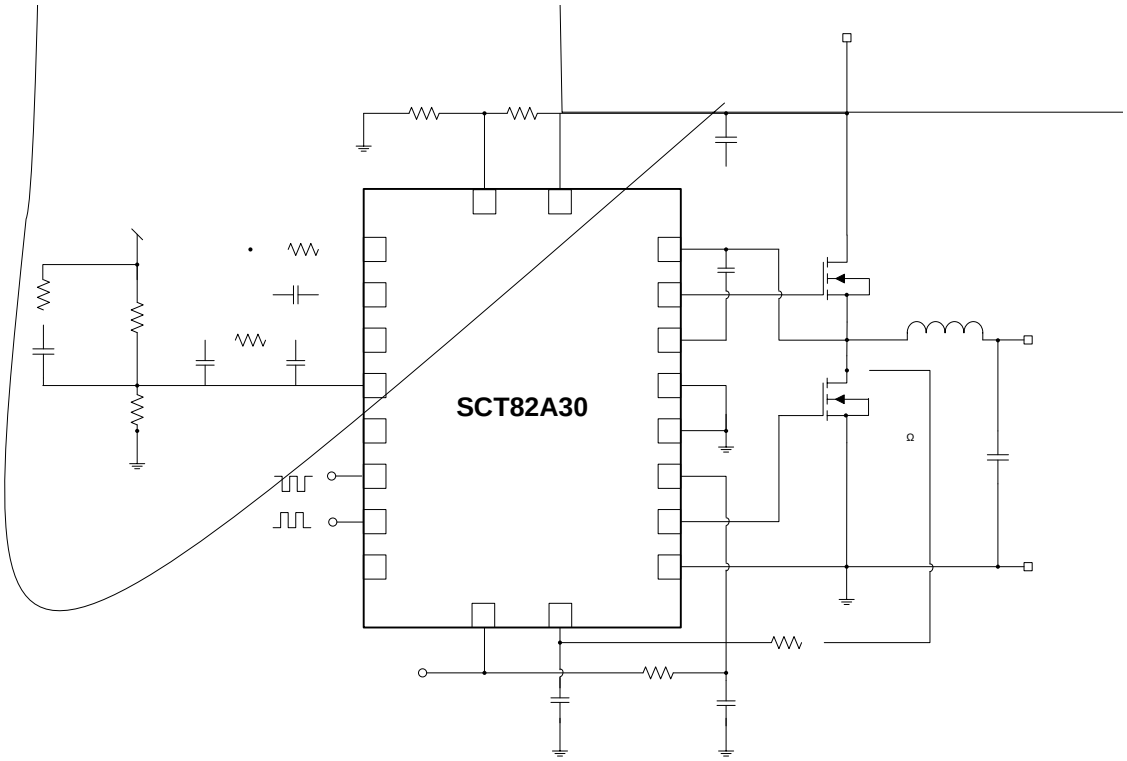


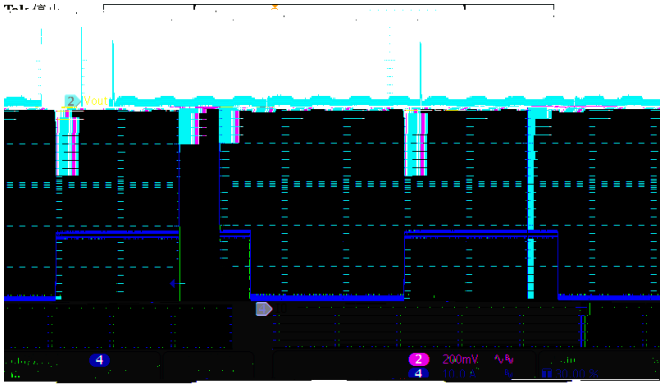
Figure 41. Application Schematic, 48V to 5V, 20A Buck Regulator at 400kHz

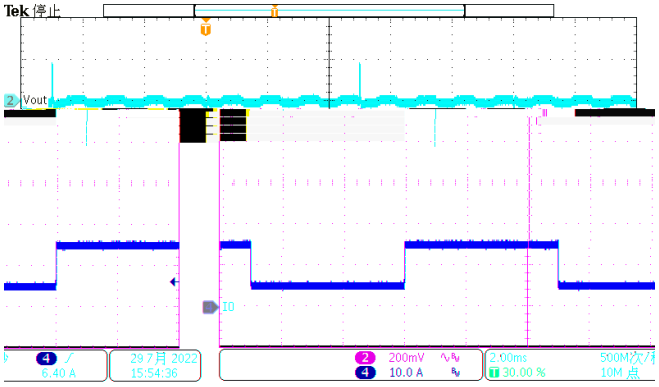
Design Parameters

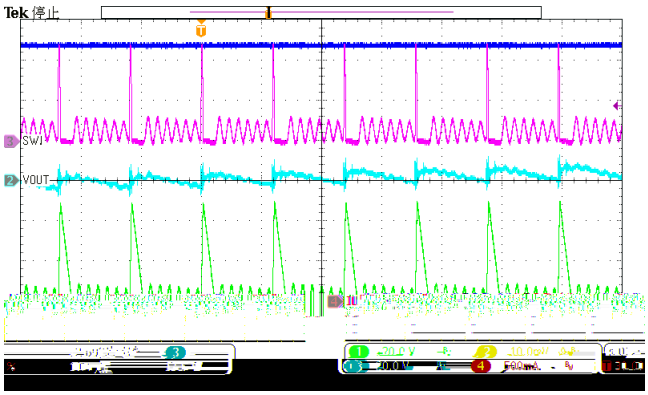
Design Parameters	Example Value

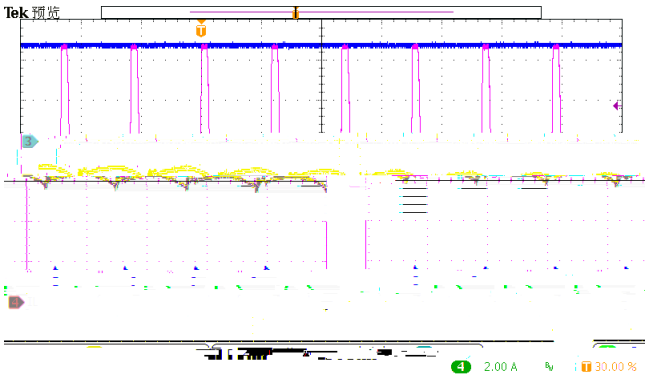
Application Waveforms

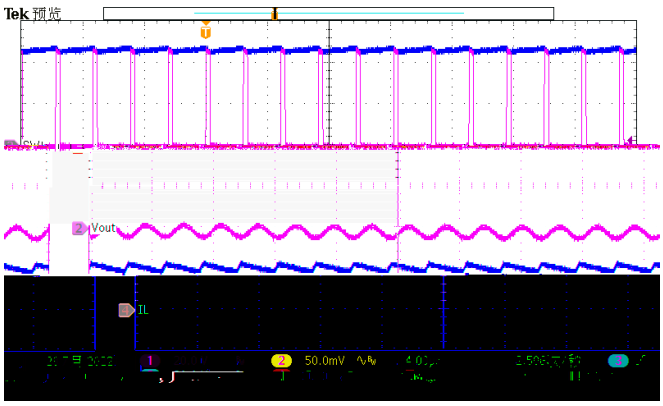
Application Waveforms(continued)











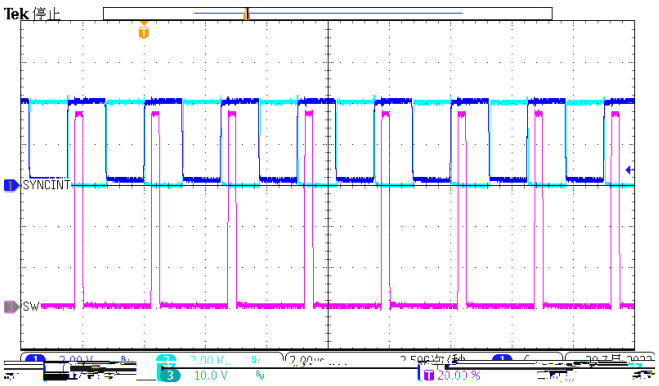


Table 5: Compensation Values for Typical Output Voltage/Capacitor Combinations at fsw=400KHz

Vout	Lм	COUT	$R_{FBм}$	$R_{FBн}$	$R_{см}$	$C_{см}$	$C_{сн}$	$R_{сн}$	$C_{со}$
pV	o.ouH	p*птuF	т.утK	м.pK	н.поK	мpnF	оолpF	ммл	o.onF
мнV	c.yuH	п*птuF	нмK	м.pK	ммK	п.тnF	cypF	нлл	м.pnF
нпV	c.yuH	п*птuF	по.нK	м.pK	но.нK	н.нnF	оорF	пнн	сулpF

TO VCC
TO EN