

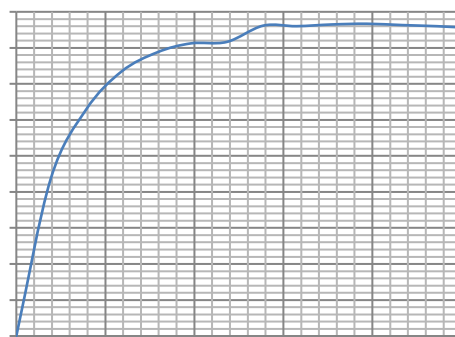
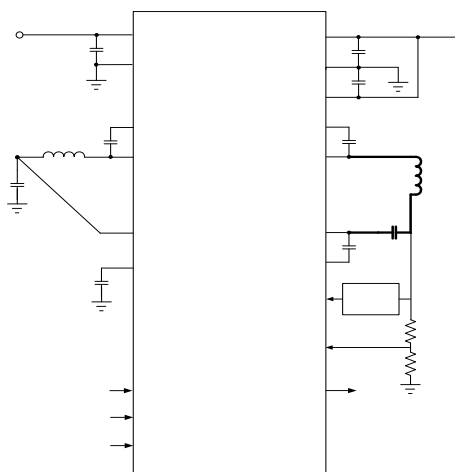
40W High-Integration, High-Efficiency PMIC for Wireless Power Transmitter

•
•
•
•

•
•
•

•
•
•
•
•
•
•
•

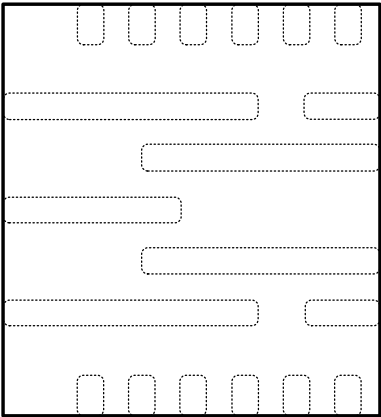
•
•
•



SCT63340

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

DESCRIPTION	MIN	MAX	UNIT



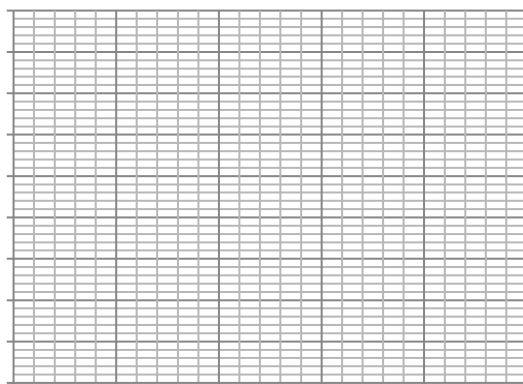
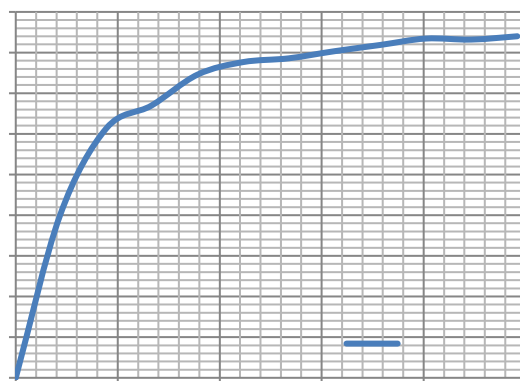
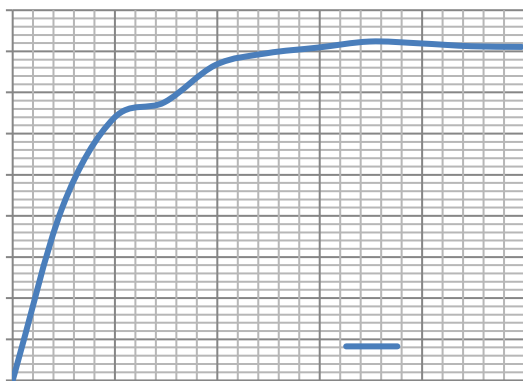
[illegible]

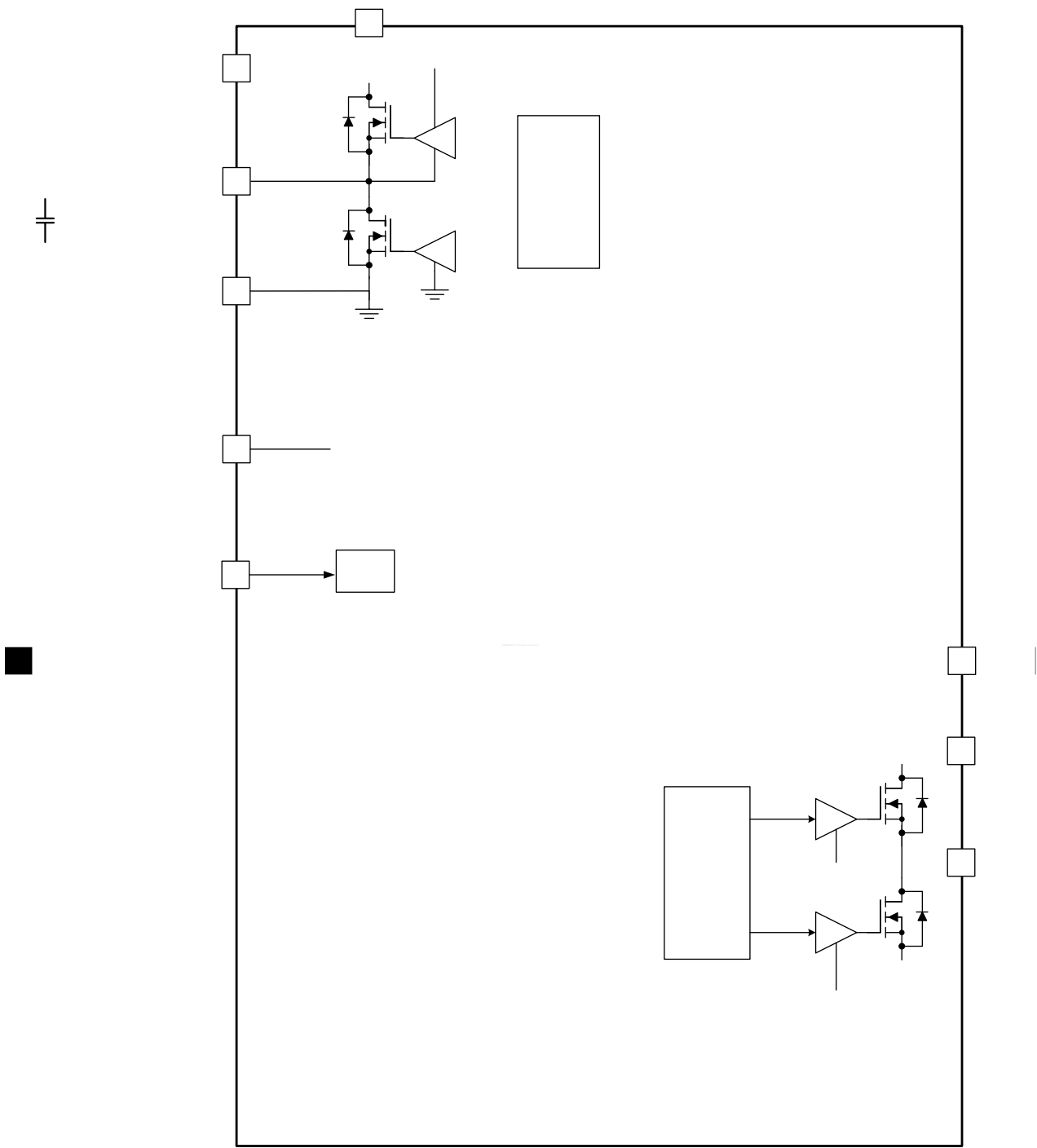
PARAMETER	DEFINITION	MIN	MAX	UNIT

SCT63340

PARAMETER	THERMAL METRIC	FCTQFN4X4-22L	UNIT

SYMBOL	PARAMETER	TEST CONDITION	MIN	TYP	MAX	UNIT
Input supplies and UVLO						
ENABLE INPUTS and PWM logic						
Power Stage						
Buck converter						



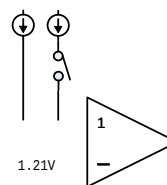


Overview

Enable and Start up Sequence

$$V_{\text{rise}} = 1.19 * \left(1 + \frac{R1}{R2}\right) - 1.5\mu\text{A} * R1$$

$$V_{\text{fall}} = 1.1 * \left(1 + \frac{R1}{R2}\right) - 5.5\mu\text{A} * R1$$



5V Output Buck Converter

Full Bridge Power Stage and PWM Control

Full Bridge Over Current Protection

Current Sense

$$V_{\text{ISNS}} = 600\text{mV} + I_{\text{PGND}} * 1\text{V/A}$$

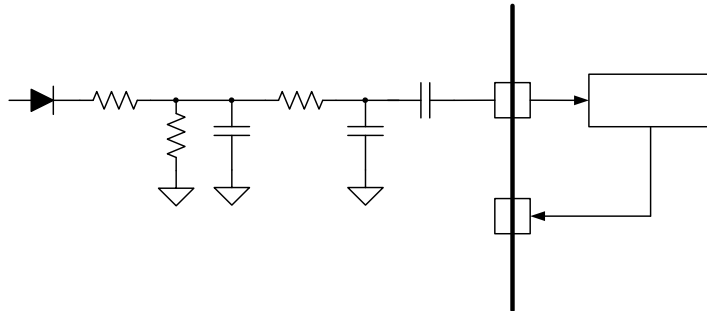
3.3V LDO

Q Factor Detection

$$Q = \frac{\Delta T * \pi}{10 * \ln \frac{V_{TH_HIGH}}{V_{TH_LOW}}}$$

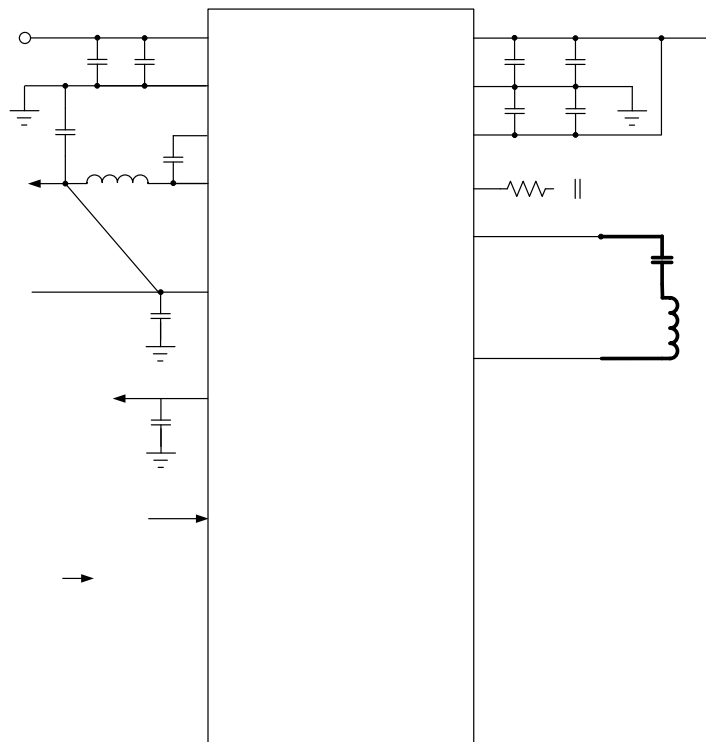
- Δ
-
-

Voltage and Current Demodulation

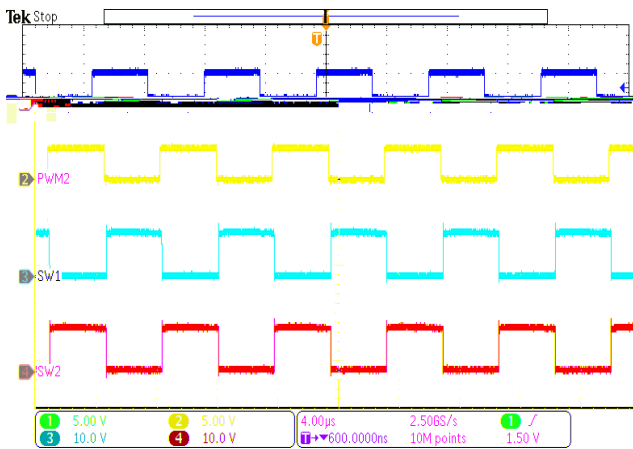
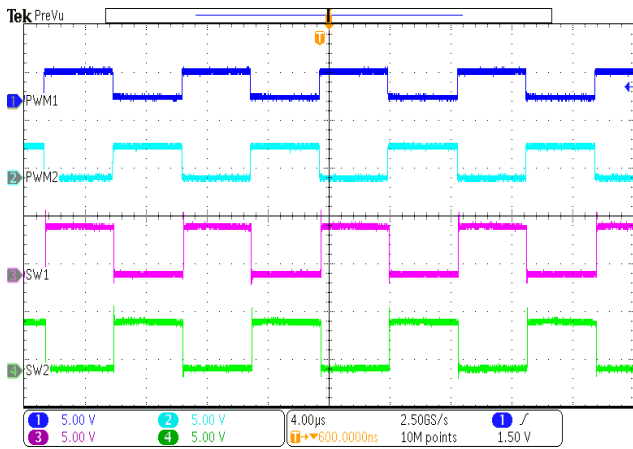
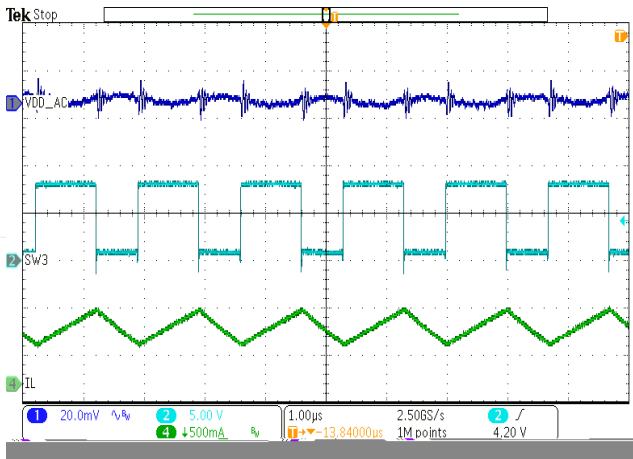
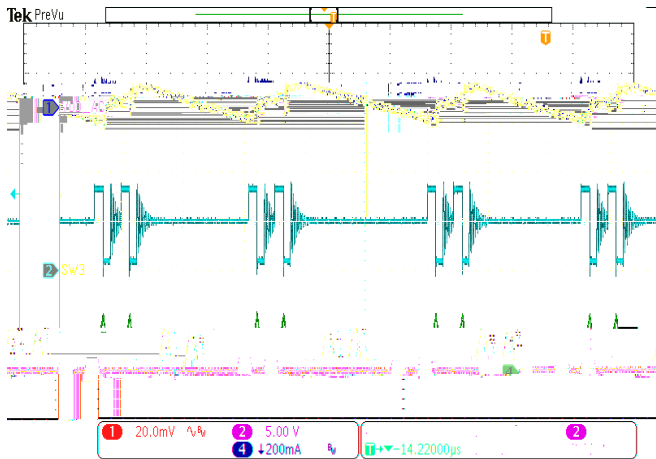
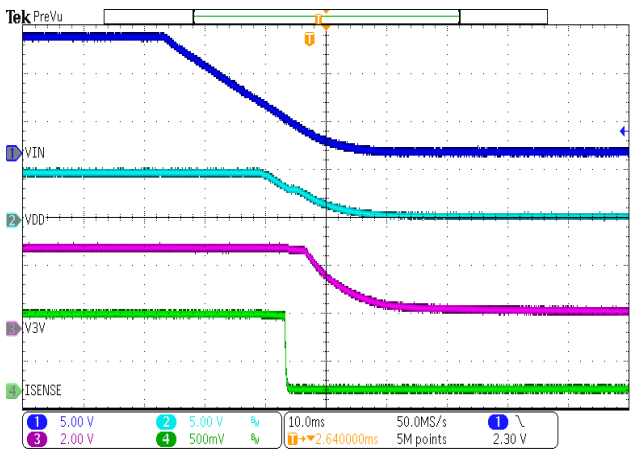
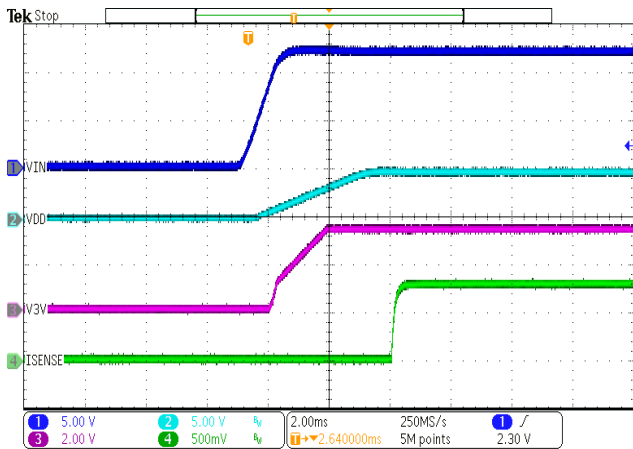


Thermal Shutdown

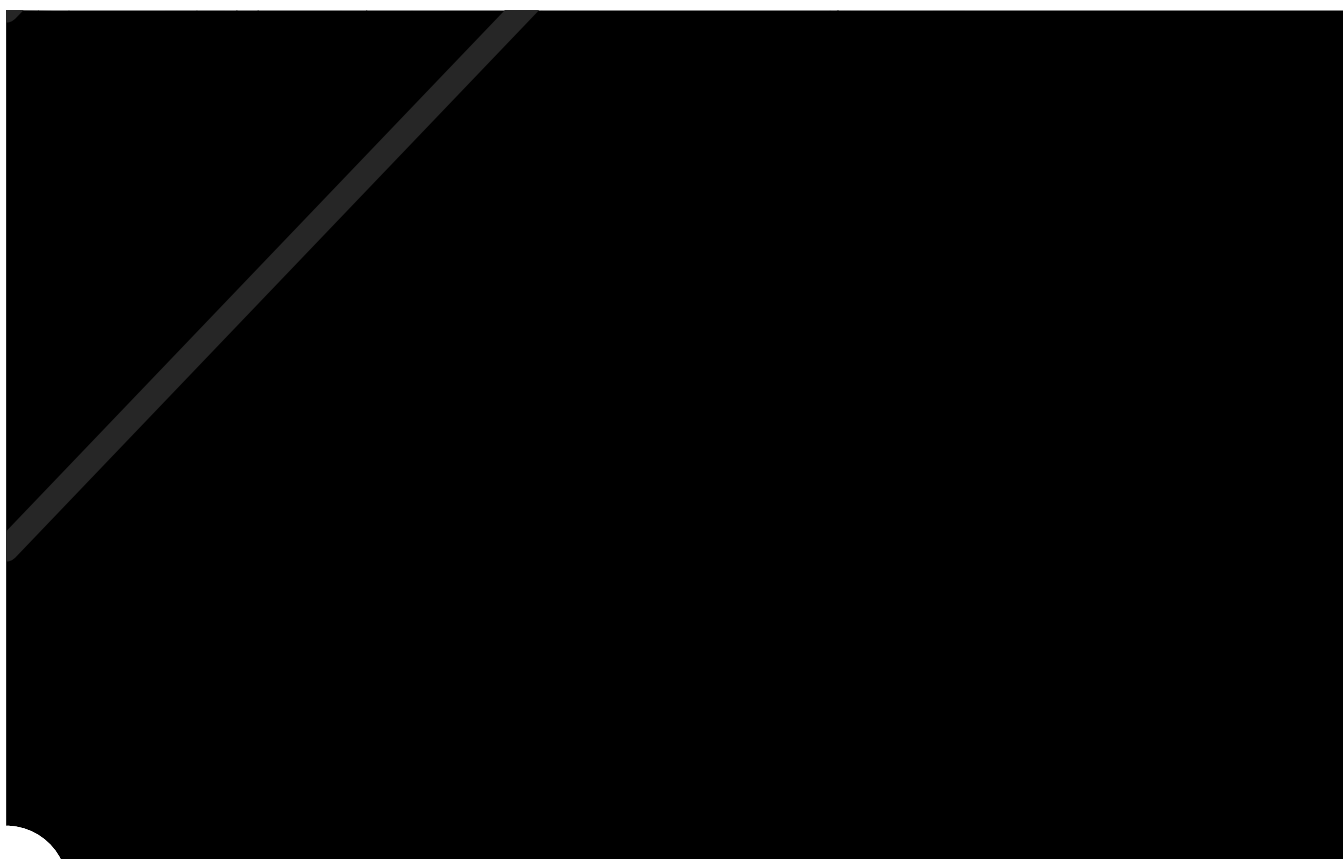
Typical Application

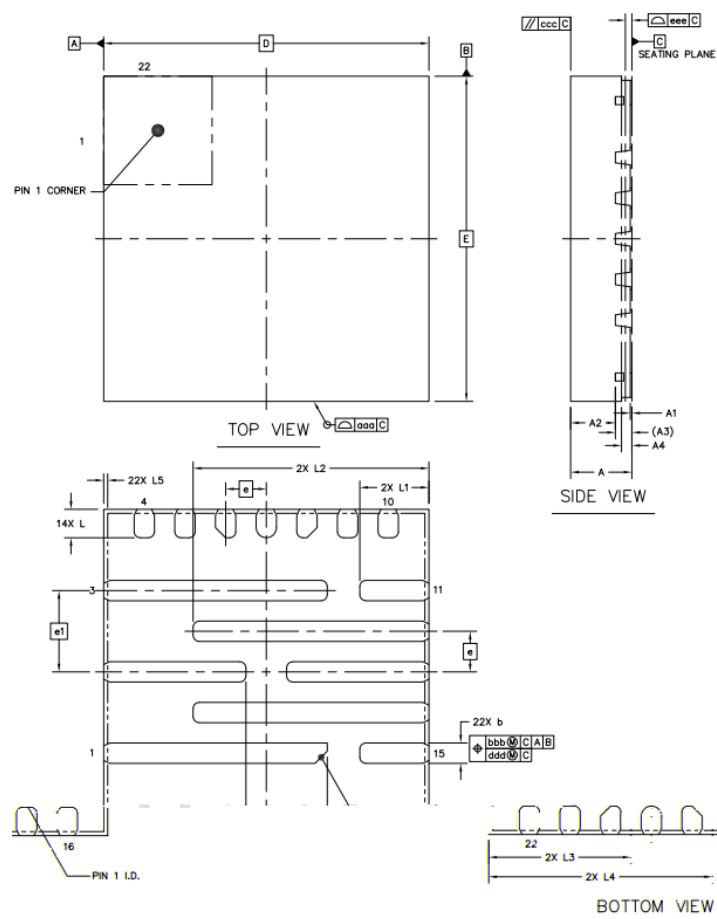


Application Waveforms



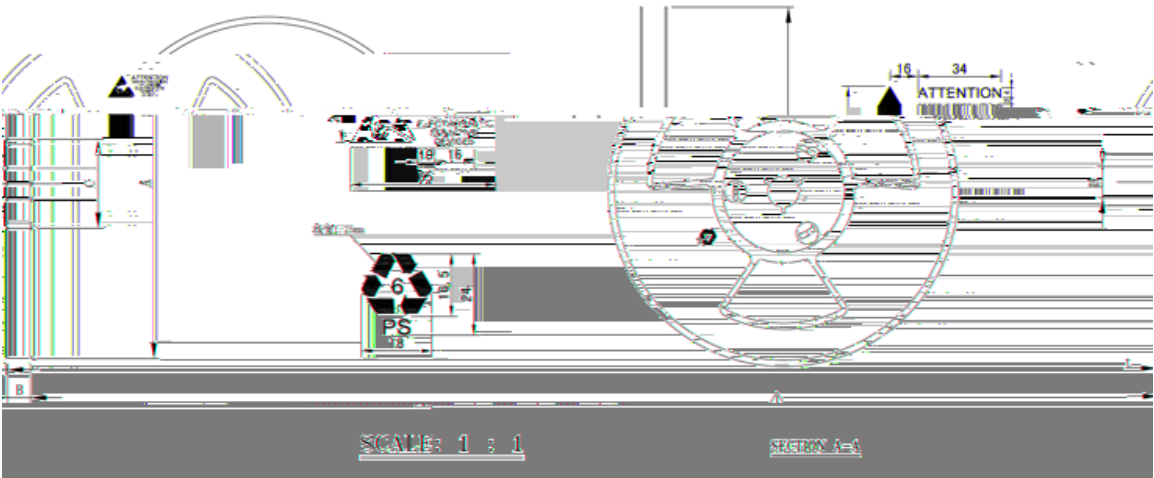
Layout Guideline

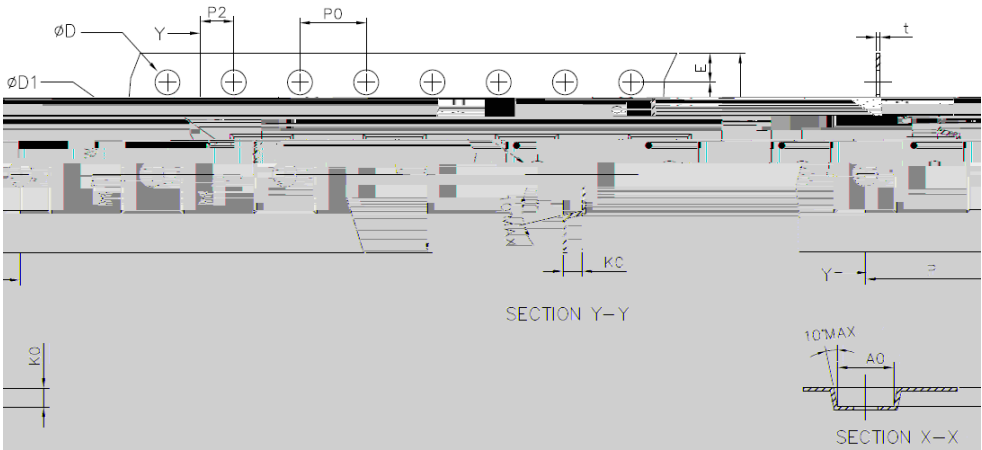




	SYMBOL	MIN	NOM	MAX
TOTAL THICKNESS		0.05	0.15	0.20
STAND OFF	A" B	0.02	0.02	0.02
WOLD THICKNESS	A2 %		0.55	
LAF THICKNESS	A3 4		0.05	
SIDE WEISTABLE DEPTH	A C	0.075		
IF AD 4000			0.05	
BODY SIZE	D 4		0.05	0.05
HEAD SIZE	E 4		0.05	0.05
HEAD LENGTH	F 4		0.05	0.05
HEAD WIDTH	G 4		0.05	0.05
HEAD HEIGHT	H 4		0.05	0.05
HEAD DEPTH	I 4		0.05	0.05
HEAD THICKNESS	J 4		0.05	0.05
HEAD WIDTH	K 4		0.05	0.05
HEAD DEPTH	L 4		0.05	0.05
HEAD THICKNESS	M 4		0.05	0.05
HEAD WIDTH	N 4		0.05	0.05
HEAD DEPTH	O 4		0.05	0.05
HEAD THICKNESS	P 4		0.05	0.05
HEAD WIDTH	Q 4		0.05	0.05
HEAD DEPTH	R 4		0.05	0.05
HEAD THICKNESS	S 4		0.05	0.05
HEAD WIDTH	T 4		0.05	0.05
HEAD DEPTH	U 4		0.05	0.05
HEAD THICKNESS	V 4		0.05	0.05
HEAD WIDTH	W 4		0.05	0.05
HEAD DEPTH	X 4		0.05	0.05
HEAD THICKNESS	Y 4		0.05	0.05
HEAD WIDTH	Z 4		0.05	0.05
HEAD DEPTH	AA 4		0.05	0.05
HEAD THICKNESS	AB 4		0.05	0.05
HEAD WIDTH	AC 4		0.05	0.05
HEAD DEPTH	AD 4		0.05	0.05
HEAD THICKNESS	AE 4		0.05	0.05
HEAD WIDTH	AF 4		0.05	0.05
HEAD DEPTH	AG 4		0.05	0.05
HEAD THICKNESS	AH 4		0.05	0.05
HEAD WIDTH	AI 4		0.05	0.05
HEAD DEPTH	AJ 4		0.05	0.05
HEAD THICKNESS	AK 4		0.05	0.05
HEAD WIDTH	AL 4		0.05	0.05
HEAD DEPTH	AM 4		0.05	0.05
HEAD THICKNESS	AN 4		0.05	0.05
HEAD WIDTH	AO 4		0.05	0.05
HEAD DEPTH	AP 4		0.05	0.05
HEAD THICKNESS	AQ 4		0.05	0.05
HEAD WIDTH	AR 4		0.05	0.05
HEAD DEPTH	AS 4		0.05	0.05
HEAD THICKNESS	AT 4		0.05	0.05
HEAD WIDTH	AU 4		0.05	0.05
HEAD DEPTH	AV 4		0.05	0.05
HEAD THICKNESS	AW 4		0.05	0.05
HEAD WIDTH	AX 4		0.05	0.05
HEAD DEPTH	AY 4		0.05	0.05
HEAD THICKNESS	AZ 4		0.05	0.05
HEAD WIDTH	BA 4		0.05	0.05
HEAD DEPTH	BB 4		0.05	0.05
HEAD THICKNESS	BC 4		0.05	0.05
HEAD WIDTH	BD 4		0.05	0.05
HEAD DEPTH	BE 4		0.05	0.05
HEAD THICKNESS	BF 4		0.05	0.05
HEAD WIDTH	BG 4		0.05	0.05
HEAD DEPTH	BH 4		0.05	0.05
HEAD THICKNESS	BI 4		0.05	0.05
HEAD WIDTH	BJ 4		0.05	0.05
HEAD DEPTH	BK 4		0.05	0.05
HEAD THICKNESS	BL 4		0.05	0.05
HEAD WIDTH	BM 4		0.05	0.05
HEAD DEPTH	BN 4		0.05	0.05
HEAD THICKNESS	BO 4		0.05	0.05
HEAD WIDTH	BP 4		0.05	0.05
HEAD DEPTH	BQ 4		0.05	0.05
HEAD THICKNESS	BR 4		0.05	0.05
HEAD WIDTH	BS 4		0.05	0.05
HEAD DEPTH	BT 4		0.05	0.05
HEAD THICKNESS	BU 4		0.05	0.05
HEAD WIDTH	BV 4		0.05	0.05
HEAD DEPTH	BW 4		0.05	0.05
HEAD THICKNESS	BX 4		0.05	0.05
HEAD WIDTH	BY 4		0.05	0.05
HEAD DEPTH	BZ 4		0.05	0.05
HEAD THICKNESS	CA 4			

NOTE:





PN	DESCRIPTION	COMMENTS
SCT63240		• • • • • • • • •
SCT63140		• • • • • • • •

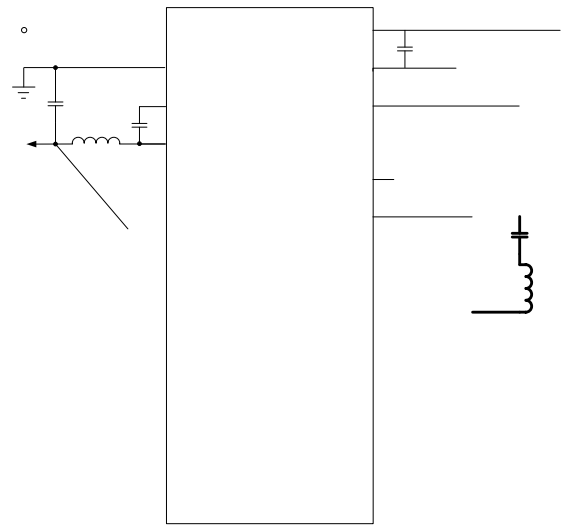


Figure 25. SCT63240 Typical Application

NOTICE: